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ABSTRACT

This volume describes the methods and results of the congressionally mandated study of the nature and extent of sex discrimination and stereotyping in vocational education, and efforts which are being made to eliminate inequities. Following an introduction to the report, part 2 presents the findings and their interpretations organized into six sections: section A focuses on state level data; section B focuses on the local education agency level; section C covers the school level data; section D discusses interviewees' opinions and perceptions of sex equity; section E contains suggestions concerning possible productive approaches; and section F describes constraints that are viewed by vocational educators as limiting or retarding equity in vocational education. Finally, part 3 presents the summary and conclusions in terms of the study's objectives. (JH)

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Final Report

Volume I

PRIMARY DATA OF THE VOCATIONAL EDUCATION EQUITY STUDY

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CE 022 751

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Laurie R. Harrison, Project Director
Beverly J. Parks, Associate Project Director

I. INTRODUCTION

BACKGROUND

The primary role of vocational education has been to prepare people for occupations that require less than a baccalaureate degree, through training programs and cooperative arrangements with business and industry. Historically and legislatively this is the mandate of vocational education. Thus vocational education is closely associated with occupational choices and opportunities. Such choices are among the most critical that a person ever makes; they help to determine income, status, and life satisfaction. Vocational education programs thus represent important steps in the growth and development of many students. In recent years, however, it has become clear that there are certain factors which restrict an individual's choice of and access to vocational education programs. One such limiting factor derives from differences due to sex. Any factor which impedes educational opportunity for any individual in a democratic society runs counter to the ideals of that society.

Such is the contextual setting of this study, whose mandate from Congress is to examine the extent and nature of sex stereotyping and sex discrimination in vocational education, and the progress which has been made in reducing such inequities. By most criteria, sex stereotyping and discrimination more adversely affect women than men, generally by relegating them to training programs leading to lower paying, lower prestige jobs with few avenues for advancement. However, this study also examined the deleterious effects of stereotyping on men, as well as the special problems of minorities, particularly minority women, and of older women returning to school.

Although changes in civil rights laws in 1964 and Title IX of the Education Amendments of 1972 made sex and race discrimination illegal, inequities remained. Thus while these anti-discrimination measures were necessary, they were not sufficient to eliminate institutionalized stereotyping and discrimination. Educators, advocates, and congressional members recognized that these measures needed to be supplemented with actions which would carry out the intent of the law. In enacting the Education Amendments of 1976 (Public Law 94-482) Congress has provided for such steps. The declaration of purpose authorizes federal grants to states to assist them to "develop and carry out such programs of vocational education within each state so as to overcome sex discrimination and sex stereotyping in vocational education programs (including programs of homemaking), and thereby furnish equal educational opportunities in vocational education to persons of both sexes."

There are active mandates throughout the legislation to address inequities through staff development, curriculum development, research and demonstration projects, and guidance and counseling. Section 104(b)(1) of the Act requires states to assign full-time personnel specific activities aimed at reducing sex stereotyping and to assure that the needs and interests of women are addressed in projects assisted under the Act. Additionally, the legislation defined a number of activities to be taken at the state, local, and school levels. These include:

- Taking action to create awareness of vocational education programs and activities to reduce sex stereotyping in all fields;
- Gathering, analyzing, and disseminating data on the status of men and women students and employees in vocational education programs of the States;
- Developing and supporting actions to correct problems uncovered through the above;
- Reviewing grant distribution by the State board to assure that the needs and interests of women are considered in projects benefited under the Act.;
- Reviewing all the State's vocational education programs for sex bias;
- Monitoring the implementation of laws prohibiting sex discrimination in all of the State's hiring, firing, and promotion procedures regarding vocational education;
- Reviewing and providing recommendations regarding the overcoming of sex stereotyping and sex bias in vocational education programs for the annual program plan and report;
- Assisting LEAs and others in improving vocational education opportunities for women; and
- Making available to a number of specified agencies and councils, the Commissioner of Education, and the general public, information developed pursuant to the activities listed above.

As is evident, this legislation requires a concerted effort to identify and eliminate sex inequities in vocational education. Furthermore, Section 523(a) requires the Commissioner of Education to conduct the study reported here for the purpose of examining the extent and nature of the problem of sex stereotyping and discrimination in vocational education. It is hoped that this study will significantly contribute to reducing inequities in vocational education.

PURPOSE

The goal of this study has been to conduct a fact-finding, descriptive examination of vocational education, not a compliance study to determine which specific schools, school districts, and states were complying fully with the legislation and which were not. The undertaking was designed to serve three primary purposes: (1) To provide for congressional decision-makers and vocational administrators a more accurate and comprehensive picture of the extent and nature of sex inequities in vocational education, and any progress which has been made to eliminate them; (2) To provide vocational educators and students, and interested citizens with an understanding of the nature of and solutions to sex inequities in vocational education; and (3) To provide for evaluators and researchers' present and future, within or outside vocational education, a data base and a methodology useful for measuring progress toward sex equity.

The eight major objectives of this study are as follows.

1. Assess the extent to which sex discrimination and sex stereotyping exist in all vocational programs assisted under the Vocational Education Act of 1963, as amended, and the progress which has been made in reducing such inequities.
2. Identify and analyze the extent to which progress has been made in reducing sex discrimination and sex stereotyping in occupations for which vocational students train.
3. Identify and analyze the various practices and activities, at the state and local levels which may facilitate or hinder equal opportunities for both sexes to have equal access to and preparation for a broad range of occupational fields.
4. Identify and analyze the various practices and activities, internal to school level vocational programs, which may facilitate or hinder equal opportunity for males and females.

5. Identify and analyze school programs and practices which appear to be successful in reducing or eliminating sex discrimination and stereotyping and providing equal access to all students to a wide range of training opportunities and jobs. Case studies of such programs should be developed.

6. Identify and analyze factors external to the school which inhibit sex equity, such as reluctance of employers or unions to accept women for certain jobs or apprentice programs, and analyze how schools are dealing with such factors.

7. Develop criteria by which Federal, state, and local administrators can measure progress in reducing sex discrimination and stereotyping.

COMPONENTS AND REPORTS

This project had three main activities:

1. Primary data collection and analysis
2. Secondary data analysis and literature review
3. Case studies of selected programs to combat occupational sex-role stereotyping.

Each of these is discussed briefly in the paragraphs that follow.

The main part of the study consisted in the design and implementation of the "primary data collection" study--more specifically a study involving the collection and analysis of new data from a representative sample of vocational schools at the secondary and post-secondary levels, and also data from the corresponding local educational agencies (LEAs), and from the state education agencies (SEAs).

Separate from this "main study" but playing an important role in designing it was the secondary data analysis and literature review substudy. This substudy, which was carried out by Steiger, Fink, and Kosecoff, Inc., under a subcontract from the American Institutes for Research, included (1) a review of the relevant legislation, (2) the analysis and reporting of secondary data from a variety of governmental and other sources, and (3) a review of the literature relating to sex-role socialization. This substudy resulted in a major report which is not only valuable in its own right but also proved extremely useful in planning the primary study--specifically in helping determine the research questions to be answered and thus, indirectly, in helping determine the content of the data-collection instruments.

Valuable help in determining the research questions to be answered was also provided by a second subcontractor, L. Miranda and Associates, whose task was to prepare a memorandum focusing on the vocational problems of minority women. This report was used by the project staff at AIR in developing the research questions to be answered. Additional assistance was provided by the project's advisory panel. A list of the panel members is presented in Table I.1.

The third component of the study consisted of "case studies" of programs which were implementing approaches which appear to be successful in combatting sex-role stereotyping. Twelve programs were identified and described in depth; twelve additional promising approaches were described more briefly.

Scope and Character of Primary Data Collection Study

The primary data collection component of the project was a large-scale effort involving (1) the selection of a sample of publicly supported schools offering significant amounts of vocational education at the secondary or post-secondary level; (2) the planning and development of suitable data-collection instruments--both questionnaires and interview forms; (3) the collection of data from samples of state staff, and teachers, counselors, and students at the selected schools and in the corresponding LEAs; (4) the analysis and interpretation of the resulting data; and (5) the preparation of a report (this document).

It will be noted that the scope of the project did not include one important link in the chain--in many senses the terminal link. That link is potential employers. It was decided at a very early stage (actually before the award of the contract) that practical considerations (available funds and available time) would preclude collecting data from a large enough and representative enough sample of this group to provide meaningful results. However, the study did analyze data from the Bureau of Labor Statistics to show the participation rates of men and women in the various occupations for which vocational students train. These analyses are contained in Volume II prepared by Steiger, Fink, and Kosekoff, Inc.

Table I.1

ADVISORY PANEL MEMBERS AND TECHNICAL CONSULTANTS

Federal and State Representatives

Dr. Robert Harris
National Institute of Education
Washington, D.C.

Dr. Eugene Lehrmann
State Director of Vocational Education
Madison, Wisconsin

Dr. Mary Lovell
Bureau of Occupational and Adult Education
Washington, D.C.

Dr. Bryl Shoemaker
State Director of Vocational Education
Columbus, Ohio

Dr. Amanda Smith
Division of Equal Education
Raleigh, North Carolina

Dr. Francis Tuttle .
State Director of Vocational Education
Stillwater, Oklahoma

Ms. Marta Acevedo Delfin
Bilingual Bicultural Education
State Department of Education
Sacramento, California

Local Education Representatives

Dr. Ralph C. Bohn
Dean of Continuing Education
San Jose State University
San Jose, California

Dr. Caroll J. Dierks
Department of Vocational Business Teacher Education
University of Northern Colorado
Greeley, Colorado

Mr. Robert M. Hendricks
Director of Student Services
San Mateo County Regional Occupational Program
Burlingame, California

Dr. Louise J. Keller
Professor of Vocational Education
University of Northern Colorado
Greeley, Colorado

Ms. Virginia Lockhart
Director of Reentry Program
DeAnza College
Cupertino, California

Mr. Charles F. Nichols, Sr.
Director of Vocational, Technical, and Industrial Education
Minneapolis, Minnesota

Research, Business, and Industry Representatives

Ms. Fredell Bergstrom
Manager of Affirmative Action
United Gas Pipeline Company
Houston, Texas

Ms. Barbara Brauner Berns
North Shore Guidance Center
Salem, Massachusetts

Dr. Esther E. Diamond
Senior Project Director
Science Research Associates, Inc.
Chicago, Illinois

Dr. Mary Ellis
Ellis Associates
Washington, D.C.

Dr. Carolyn L. Ellner
Associate Dean
Claremont Graduate School
Claremont, California

Ms. Carol Gibson
National Urban League
New York, New York

Dr. Jacob J. Kaufman
New York State School of Industrial and Labor Relations
Cornell University
New York, New York

Dr. Lourdes Miranda King
L. Miranda and Associates, Inc.
Washington, D.C.

Dr. Anita M. Mitchell
Senior Research Scientist
American Institutes for Research
Palo Alto, California

Dr. Pamela Roby
Fellow, Kresge College
University of California at Santa Cruz
Santa Cruz, California

Dr. Norman E. Silberberg
Associate Director for Research and Education
Sister Kenny Institute
Minneapolis, Minnesota

Dr. Marilyn Steele
Program Officer
Charles Stewart Mott Foundation
Flint, Michigan

Dr. Gladys G. Vaughn
Director of Research
American Home Economics Association
Washington, D.C.

The report reveals that in 1976, women made up 40.5% of the labor force, up from 29.6% in 1950. Over the same period, the percentage of women above 16 who were employed rose from 33.9% to 47.3%, while the percentage of men above 16 who were employed fell by 8.9% to 77.5%. Thus women are coming to represent an increasingly larger proportion of the labor force. However, the pattern of distribution of men and women among various job categories remained basically the same in 1977 as it was in 1960. Women are still heavily concentrated in traditionally female jobs, such as secretary and waiter/waitress, each of which is over 90% female. At the same time, women continued to make up a very small proportion of workers in the trades--plumbing, auto mechanics, and carpentry were all more than 99% male in 1977. Some job categories have become substantially more integrated by sex. The proportion of bus drivers who are women, for example, now approximates the proportion of the labor force that is female. There has been movement toward proportionate representation in other fields as well, but most jobs are still strongly dominated by one sex or the other, and there are very few in which the proportion of women approximates their representation in the labor force as a whole.

It should be borne in mind that the field work for the study was conducted during the spring of 1978. Under Title IX of the Education Amendments of 1972, states and schools have been attempting to reduce or eliminate sex inequities in vocational education. However, the regulations for Public Law 94-482 which contains specific requirements for overcoming sex inequities, were not published until October 1, 1977. Thus we can observe efforts which have resulted from Title IX and some of the early efforts to implement the new Act.

Reports Produced by this Project

The following are the major products of this study:

Volume I	The present report which is concerned with the primary data collection and analysis
Volume II	Literature and Secondary Data Review. Prepared for the American Institutes for Research by Steiger, Fink, and Kosecoff, 1979.
Volume III	Case Studies and Promising Approaches for Achieving Sex Equity in Vocational Education (American Institutes for Research, 1979)

Volume IV Replication Handbook (American Institutes for Research, 1979)

This last volume is addressed primarily to other investigators who may wish to replicate the present study at some time in the future, or to carry out a similar but smaller-scale study. It contains the extensive set of research instruments which were developed for this study, and is intended as a guidebook for future researchers.

METHODOLOGY OF THE STUDY

This section consists of a brief nontechnical description of major aspects of the methodology used in this study. For those readers who are interested, a more technical treatment of certain aspects is presented in Appendices A through C.

Selection of the School Sample

The school sample contains 100 schools, to represent the approximately 7,000 schools in the nationwide population of vocational schools.* These hundred schools constitute what is known technically as a "probability sample." This sample of 100 schools can be counted on to give trustworthy results. Although the sample is random, it is not a simple random sample, but a stratified random sample. This means that instead of leaving representativeness in all respects to chance, certain variables are identified and representativeness of those variables is guaranteed. Within such variables, selection remains random. The three stratification variables used in this study were: (1) Geographical region, (2) Population of city, and (3) Type of school.

For the first stratification variable, geographical region, nine categories were used, the nine geographical regions used by the U.S. Census Bureau. For the second variable, cities were divided into two population size categories, with 500,000 as the division point. For the third variable, type of school, there were five categories:

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*More specifically, the population consisted of exactly 7,144 schools. The source we used was a comprehensive list of vocational schools prepared by Westat, Inc., in connection with another project for the Office of Education. We are indebted to Westat for making available to us a tape containing their "population of vocational schools."

1. Comprehensive high school
2. Vocational high school
3. Vocational center
4. Technical institute
5. Junior or community college.

When necessary, stratification variable categories were combined. For instance, in many cases the nine geographical regions were collapsed into the Census Bureau's four major areas (North East, North Central, South, and West.)

Participation in the study was voluntary. Fortunately, cooperation of all but one of the state education agencies was obtained.* Of the 102 schools selected initially, all but four agreed to participate. Alternates were obtained for two of these, providing a total of 100 participating schools, and all the corresponding LEAs. Each of the two alternate schools was randomly selected from the same stratum as the school it replaced.**

Nature of the Instruments

The basic data collection procedures were standardized interviews. In the case of student interviews they were supplemented by a questionnaire which probed attitudes on the issue of sex roles in occupations. As a supplement to the data thus collected, school records were used as sources of data on enrollments in various programs.

The questions asked covered the following general topics:

- Efforts undertaken at the state, local, and school levels to address inequities and foster greater sex equity.
- Existing patterns of enrollment and staffing
- Perceptions regarding the existence of sex stereotyping and discrimination
- Perceptions of effective techniques for fostering sex equity
- Perceptions of constraints to achieving sex equity.

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*The state director of Colorado at the time of data collection did not support the study.

**Further discussion of the procedures for selecting the schools in the sample including technical details, will be found in Appendix A.1.

The questions themselves will be found in Volume IV of the Final Report, the Replication Handbook.*

Selection of Interviewees

At the state level approximately nine persons were interviewed in each state, as follows:

State Director of Vocational Education
Sex Equity Coordinator
Executive Director of State Advisory Council
Director of Professional Development
Director of Research
State Guidance and Counseling Director
3 occupational specialists, randomized so that each of the seven basic areas' chances of being represented would be roughly proportional to the number of states where a specialist in that area was employed at the state level.

At the LEA level there were two interviewees as follows:

LEA Director of Vocational Education
LEA Director of Guidance and Counseling.

At the school level, samples of teachers, counselors, and students were interviewed. As in the case of school selection, the "stratified random sampling procedure" was used for the selection of teachers (stratified on area taught) and students. Approximately 35 students, 8 teachers, and 4 counselors (including some feeder-school counselors where appropriate) were interviewed at each site. Special procedures for selecting the student sample were developed to insure that inherently small groups--i.e., "nontraditional students," (students in occupational programs where at least 80% of the students are of the opposite sex) and members of ethnic minorities--would be adequately represented.** To insure that the sample would have

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*OMB reviewers uniformly removed all attitude questions with the exception of four items which were asked in the student questionnaire. Because others may want to use these or similar attitude items they are included in the Replication Handbook.

**Further discussion of the procedures for selecting interviewees, including technical details, will be found in Appendix A.2.

Table I.2

STATES FALLING IN USOE REGIONS
AND CENSUS BUREAU AREAS

USOE Regions:

Regions I and II	Connecticut	New Hampshire	Rhode Island
	Maine	New Jersey	Vermont
	Massachusetts	New York	
Region III	Delaware	Maryland	Virginia
	District of Columbia	Pennsylvania	West Virginia
Region IV	Alabama	Kentucky	South Carolina
	Florida	Mississippi	Tennessee
	Georgia	North Carolina	
Region V	Illinois	Michigan	Ohio
	Indiana	Minnesota	Wisconsin
Region VI	Arkansas	New Mexico	Texas
	Louisiana	Oklahoma	
Region VII	Iowa	Missouri	
	Kansas	Nebraska	
Region VIII	Colorado	North Dakota	Utah
	Montana	South Dakota	Wyoming
Region IX	Arizona	Hawaii	
	California	Nevada	
Region X	Alaska	Oregon	
	Idaho	Washington	

Census Bureau Areas:

North East	Connecticut	New Hampshire	Pennsylvania
	Maine	New Jersey	Rhode Island
	Massachusetts	New York	Vermont
North Central	Illinois	Michigan	Nebraska
	Indiana	Minnesota	Ohio
	Iowa	Missouri	South Dakota
	Kansas	North Dakota	Wisconsin
South	Alabama	Georgia	Oklahoma
	Arkansas	Kentucky	South Carolina
	Delaware	Louisiana	Tennessee
	District of Columbia	Maryland	Texas
	Florida	Mississippi	Virginia
		North Carolina	West Virginia
West	Alaska	Idaho	Oregon
	Arizona	Montana	Utah
	California	Nevada	Washington
	Colorado	New Mexico	Wyoming
	Hawaii		

enough cases from these groups to permit the types of data analysis planned, we systematically "oversampled" from these groups.

Baseline Data

To measure progress one must have a point from which it can be measured. For this purpose it was decided to use some previously unanalyzed data which had been collected by HEW's Office of Civil Rights (OCR) in their 1974 survey of "area vocational schools." The population for this study included 1,507 schools, and included all of the types of schools included in the current study, with the exception of comprehensive high schools. OCR obtained responses to their questionnaire survey from 1,211 (about 80%) of the schools they contacted. A 50% sample of the schools in the OCR data (stratified by state) was selected for analysis. This 50% sample was reduced somewhat (to 516 schools) by the elimination of those schools with badly incomplete or otherwide unusable records. The 516 school records that remained after this culling provided a useful set of 1974 baseline data on enrollments (by sex and ethnic group) in various occupational programs, with which the data collected in 1978 could be compared. Direct comparisons could be made, provided that for these analyses the comprehensive high schools were omitted from the 1978 data. Additional baseline data which was used included BOAE enrollment data for 1972, 1975, and 1976.

Categories in Terms of which the Data are Analyzed

State data are in many instances analyzed in terms of geographical area (either the ten USOE regions or the four major areas into which the U.S. Bureau of the Census divides the country. District and school data are often analyzed regionally, or in terms of type of school (the same five categories as were used as a stratification variable in selecting the school sample). The states falling in each of the USOE regions and Census Bureau areas are shown in Table I.2.

Instructor data and student data are sometimes classified in terms of the seven basic occupational areas:

1. Health
2. Home Economics

3. Business
4. Merchandizing and Distribution
5. Technical
6. Trade and Industrial
7. Agriculture.

Students are classified by sex and also in terms of how their occupational programs are stereotyped, i.e., traditionally male, unstereotyped or mixed, and traditionally female. They are also frequently classified in terms of age and ethnic category.

Methodological Aspects of the Data Analysis

Although this is not the appropriate place for a technical discussion of the solutions to the various methodological problems encountered in the data analysis, two points are worth mentioning at this stage because they have a pervasive effect throughout much of the data analysis.

The first point concerns weights applied to the data. Appropriate sets of weights were developed to be applied to student, school, teacher, counselor, and LEA data, to make possible the estimation of statistics representing not only the total national population of vocational students, schools, teachers, counselors, and LEAs respectively, but also any segments of those populations. Secondly, "activity indexes" at the state and school levels were developed to indicate the amount of activity undertaken to reduce or eliminate stereotyping and discrimination. For each state, ten specific indexes plus one overall index were developed. For each school six specific indexes and one overall index were developed. The specific purpose of these indexes is to facilitate data analysis. Technical discussions of both the weighting procedures and the development of the activity indexes are provided in Appendix C.

CONTENTS OF THIS REPORT

In Part II of this report findings are presented and interpreted. Section A focuses on the state-level data, and Section B on the LEA-level data, and Section C focuses on school-level data. Part II continues with three more chapters which cut across these three "level" categories. Section D considers interviewees' opinions and perceptions of sex equity.

Section E contains suggestions concerning possible productive approaches and Section F is concerned with constraints that are viewed by vocational educators as limiting or retarding equity in vocational education.

Part III, the summary and conclusions section, represents an effort to pull all the components of Part II together, reorganizing and interpreting the salient findings in terms of the objectives listed earlier in this chapter.

II. FINDINGS

II.A STATE LEVEL EFFORTS TO ADDRESS INEQUITIES

INTRODUCTION

As stated in the introduction to this volume, equity activities in a variety of areas are required of states. Interviews were conducted during the Spring of 1978 to determine where each state was in terms of implementing activities in each of these areas. The following individuals were interviewed: the State Director of Vocational Education, the Sex Equity Coordinator, three Occupational Program Specialists, the Directors of Research, Counseling, and Professional Development, and the Executive Director of the State Advisory Council. Prior to visiting the state agency, the three occupational program specialists to be interviewed were selected randomly (within constraints to assure that each of the seven vocational programs would be adequately represented*).

Information was also collected on the sex, ethnicity, and experience of state level staff members and the members of the state advisory council. Forty-nine states and the District of Columbia participated in the study at the state agency level.

The results of data collection activities at the state level will be reported in five main sections. They are:

- Staffing Patterns at the State Level
- State Level Activity
- Role and Responsibility of the Sex Equity Coordinator
- Budgeting for Sex Equity at the State Level
- Summary

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* See Appendix A.2 for details on the selection.

STAFFING PATTERNS AT THE STATE LEVEL

Men predominate in all state level positions, except those associated with certain of the traditionally female occupational areas, and the newly created position of Sex Equity Coordinator. At the same time, there appear to be very few differences in the years spent in various roles in education between men and women holding like positons.

The sex of persons holding various positions does not appear to be related to scores on the State Level Activity Indexes, nor does the proportion of women on State Advisory Councils. About 69% of State Advisory Council members are men, but the great majority of councils have women members with expertise in areas related to sex inequities in vocational training or in the job market.

Makeup of State Level Staff

Table A.1 shows the number of men and women in various positions within vocational education at the state level. The following facts emerge from a review of this table:

- One or the other sex predominates in each position. The largest percentage shown for the 'non-predominant' sex is 24% for women Directors of Business and Office Occupations, a traditionally female occupational area.
- Men predominate in all positions with overall responsibility except Sex Equity Coordinator. The highest percentage of women in any other position is 22.2% for Directors of Guidance and Counseling.
- Each state director of a traditionally male occupational area--agriculture, trade and industrial occupations, and technical occupations--is a man.
- Over 90% of the Directors of Distributive Education--a traditionally mixed occupational area--are men.
- Women predominate in two of three traditionally female occupational areas as Directors of Health Occupations, and as Directors of Home Economics. Men, however, predominate as Directors of Business and Office Occupations.
- Minority group members are less represented among state level leaders than they are in the population as a whole.

Table A.1

SEX AND RACE OF STATE LEVEL STAFF

Position	Total by Sex				Total by Race								Total by Sex and Race															
	Men		Women		White		Black		Hispanic		Asian/ Pac. Is.		White Men		Black Men		Hispanic Men		Asian/ Pacific Is. Men		White Women		Black Women		Hispanic Women		Asian/ Pacific Is. Men	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
State Director																												
Total	49	98.0	1	2.0	46	92.0	3	6.0	0	0.0	1	2.0	45	90.0	3	6.0	0	0.0	1	2.0	1	2.0	0	0.0	0	0.0	0	0.0
N. East	9	100.0	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. Central	12	100.0	0	0.0	11	91.7	1	8.3	0	0.0	0	0.0	11	91.7	1	8.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South	17	100.0	0	0.0	16	94.1	1	5.9	0	0.0	0	0.0	16	94.1	1	5.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West	11	100.0	1	8.3	10	83.3	1	8.3	0	0.0	1	8.3	9	75.0	1	8.3	0	0.0	1	8.3	1	8.3	0	0.0	0	0.0	0	0.0
Sex Equity Coor.																												
Total	1	2.0	49	98.0	40	80.9	10	20.0	0	0.0	0	0.0	1	2.0	0	0.0	0	0.0	0	0.0	39	78.0	10	20.0	0	0.0	0	0.0
N. East	0	0.0	9	100.0	8	88.9	1	11.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	88.9	1	11.1	0	0.0	0	0.0
N. Central	0	0.0	12	100.0	9	75.0	3	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	75.0	3	25.0	0	0.0	0	0.0
South	1	5.9	16	94.1	12	70.6	5	29.4	0	0.0	0	0.0	1	5.9	0	0.0	0	0.0	0	0.0	11	64.7	5	29.4	0	0.0	0	0.0
West	0	0.0	12	100.0	11	91.7	1	8.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	91.7	1	8.3	0	0.0	0	0.0
Exec. Director of the State Advisory Council																												
Total	47	94.0	3	6.0	48	96.0	1	2.0	0	0.0	1	2.0	46	92.0	0	0.0	0	0.0	1	2.0	2	4.0	1	2.0	0	0.0	0	0.0
N. East	9	100.0	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. Central	12	100.0	0	0.0	12	100.0	0	0.0	0	0.0	0	0.0	12	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South	16	94.1	1	5.9	16	94.1	1	5.9	0	0.0	0	0.0	16	94.1	0	0.0	0	0.0	0	0.0	0	0.0	1	5.9	0	0.0	0	0.0
West	10	83.3	2	16.7	11	91.7	0	0.0	0	0.0	1	8.3	9	75.0	0	0.0	0	0.0	1	8.3	2	16.7	0	0.0	0	0.0	0	0.0
State Dir. of Prof. Development																												
Total	38	86.4	6	13.6	40	90.9	1	2.3	2	4.5	1	2.3	35	79.5	0	0.0	2	4.5	1	2.3	5	11.4	1	2.3	0	0.0	0	0.0
N. East	8	100.0	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. Central	10	90.9	1	9.1	11	100.0	0	0.0	0	0.0	0	0.0	10	90.9	0	0.0	0	0.0	0	0.0	1	9.1	0	0.0	0	0.0	0	0.0
South	12	80.0	3	20.0	14	93.3	1	6.7	0	0.0	0	0.0	12	80.0	0	0.0	0	0.0	0	0.0	2	13.3	1	6.7	0	0.0	0	0.0
West	8	80.0	2	20.0	7	70.0	0	0.0	2	20.0	1	10.0	5	50.0	0	0.0	2	20.0	1	10.0	2	20.0	0	0.0	0	0.0	0	0.0
Dir. of Research, Management & Eval.																												
Total	45	88.2	6	11.8	47	92.1	3	5.9	0	0.0	1	2.0	43	84.3	2	3.9	0	0.0	0	0.0	4	7.8	1	2.0	0	0.0	1	2.0
N. East	8	88.8	1	11.1	8	88.8	1	11.1	0	0.0	0	0.0	7	77.7	1	11.1	0	0.0	0	0.0	1	11.1	0	0.0	0	0.0	0	0.0
N. Central	11	91.7	1	8.3	12	100.0	0	0.0	0	0.0	0	0.0	11	91.7	0	0.0	0	0.0	0	0.0	1	8.3	0	0.0	0	0.0	0	0.0
South	15	83.3	3	16.7	17	94.4	1	5.6	0	0.0	0	0.0	15	83.3	0	0.0	0	0.0	0	0.0	2	11.1	1	5.6	0	0.0	0	0.0
West	11	91.6	1	8.3	10	83.3	1	8.3	0	0.0	1	8.3	10	83.3	1	8.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	8.3
Dir. of Guidance & Counseling																												
Total	35	77.8	10	22.2	39	86.6	5	11.1	0	0.0	1	2.2	33	73.3	1	2.2	0	0.0	1	2.2	6	13.3	4	8.9	0	0.0	1	2.2
N. East	4	50.0	4	50.0	7	87.5	1	12.5	0	0.0	0	0.0	4	50.0	0	0.0	0	0.0	0	0.0	3	37.5	1	12.5	0	0.0	0	0.0
N. Central	8	88.9	1	11.1	9	100.0	0	0.0	0	0.0	0	0.0	8	88.9	0	0.0	0	0.0	0	0.0	1	11.1	0	0.0	0	0.0	0	0.0
South	14	82.4	3	17.6	13	76.5	4	23.5	0	0.0	0	0.0	13	76.5	1	5.9	0	0.0	0	0.0	0	0.0	3	17.6	0	0.0	0	0.0
West	9	81.8	2	18.2	10	90.9	0	0.0	0	0.0	1	9.1	8	72.7	0	0.0	0	0.0	1	9.1	2	18.2	0	0.0	0	0.0	0	0.0

Table A.1 - continued

	Total by Sex				Total by Race								Total by Sex and Race															
	Men		Women		White		Black		Hispanic		Asian/ Pac. Is.		White Men		Black Men		Hispanic Men		Asian/ Pacific Is. Men		White Women		Black Women		Hispanic Women		Asian/ Pacific Is. Men	
Position	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Traditionally Male Occupational Areas																												
Dir. of Agricultural Occupations																												
Total	22	100.0	0	0.0	20	90.9	1	4.3	0	0.0	1	4.5	20	90.9	1	4.5	0	0.0	1	4.5	0	0.0	0	0.0	0	0.0	0	0.0
N. East	1	100.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. Central	7	100.0	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South	9	100.0	0	0.0	8	88.9	1	11.1	0	0.0	0	0.0	8	88.9	1	11.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West	4	100.0	0	0.0	3	75.0	0	0.0	0	0.0	1	25.0	3	75.0	0	0.0	0	0.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0
Director of Trade & Industrial Occupations																												
Total	30	100.0	0	0.0	28	93.3	0	0.0	1	3.3	1	3.3	28	93.3	0	0.0	1	3.3	1	3.3	0	0.0	0	0.0	0	0.0	0	0.0
N. East	5	100.0	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. Central	7	100.0	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0	7	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South	8	100.0	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0	8	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West	10	100.0	0	0.0	8	80.0	0	0.0	1	10.0	1	10.0	8	80.0	0	0.0	1	10.0	1	10.0	0	0.0	0	0.0	0	0.0	0	0.0
Director of Technical Occupations																												
Total	9	100.0	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. East	1	100.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. Central	2	100.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South	4	100.0	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
West	2	100.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Traditionally Mixed Occupational Areas																												
Dir. of Marketing & Distribution Occup.																												
Total	17	94.4	1	5.6	17	94.5	0	0.0	0	0.0	1	5.6	16	88.9	0	0.0	0	0.0	1	5.6	1	5.6	0	0.0	0	0.0	0	0.0
N. East	3	100.0	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
N. Central	5	100.0	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South	4	80.0	1	20.0	5	100.0	0	0.0	0	0.0	0	0.0	4	80.0	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0
West	5	100.0	0	0.0	4	80.0	0	0.0	0	0.0	1	20.0	4	80.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0
Traditionally Female Occupational Areas																												
Dir. of Business & Office Occupations																												
Total	19	76.0	6	24.0	22	88.0	2	8.0	1	4.0	0	0.0	18	72.0	0	0.0	1	4.0	0	0.0	4	16.0	2	8.0	0	0.0	0	0.0
N. East	5	83.3	1	16.7	6	100.0	0	0.0	0	0.0	0	0.0	5	83.3	0	0.0	0	0.0	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0
N. Central	3	75.0	1	25.0	4	100.0	0	0.0	0	0.0	0	0.0	3	75.0	0	0.0	0	0.0	0	0.0	1	25.0	0	0.0	0	0.0	0	0.0
South	7	70.0	3	30.0	8	80.0	2	20.0	0	0.0	0	0.0	7	70.0	0	0.0	0	0.0	0	0.0	1	10.0	2	20.0	0	0.0	0	0.0
West	4	80.0	1	20.0	4	80.0	0	0.0	1	20.0	0	0.0	3	60.0	0	0.0	1	20.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0
Dir. of Health Occup.																												
Total	3	15.8	16	84.2	18	94.7	1	5.3	0	0.0	0	0.0	3	15.8	0	0.0	0	0.0	0	0.0	15	78.9	1	5.3	0	0.0	0	0.0
N. East	0	0.0	6	100.0	6	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0
N. Central	2	50.0	2	50.0	4	100.0	0	0.0	0	0.0	0	0.0	2	50.0	0	0.0	0	0.0	0	0.0	2	50.0	0	0.0	0	0.0	0	0.0
South	1	14.3	6	85.7	6	85.7	1	14.3	0	0.0	0	0.0	1	14.3	0	0.0	0	0.0	0	0.0	5	71.4	1	14.3	0	0.0	0	0.0
West	0	0.0	2	100.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0
Dir. of Home Economics																												
Total	0	0.0	24	100.0	20	83.3	3	12.5	0	0.0	1	4.2	0	0.0	0	0.0	0	0.0	0	0.0	20	83.3	3	12.5	0	0.0	1	4.2
N. East	0	0.0	4	100.0	3	75.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0
N. Central	0	0.0	5	100.0	5	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0
South	0	0.0	8	100.0	6	75.0	2	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	75.0	2	25.0	0	0.0	0	0.0
West	0	0.0	7	100.0	6	85.7	0	0.0	0	0.0.0	1	14.3	0	0.0	0	0.0	0	0.0	0	0.0	6	85.7	0	0.0	0	0.0	1	14.3

> Blacks, and Asians and Pacific Islanders represent, respectively, 7.9% and 1.7% of the individuals mentioned in Table A.1. This compares with 1970 census data of 11.1% and 0.67%, respectively. No American Indians or Native Alaskans are included, and only two Hispanics, less than one tenth of one percent. Of the 147 directors of occupational areas interviewed, 4.8% were Black, 1.4% Hispanic, and 2.7% Asian or Pacific Islander.

Thus, state level leadership is overwhelmingly white and male. The majority of women holding state level leadership positions are either Sex Equity Coordinators, Directors of Home Economics, or Directors of Health Occupations.

Experience in Education of State Level Staff

Table A.2 shows the number of years experience, in each of several roles, held by women and men in each state level leadership position. Two-tailed t tests were made to determine if men and women filling like positions differed significantly in their years of experience in any of these roles. Only one such test proved significant: women serving as Directors of Professional Development had greater experience as counselors than did their male counterparts. Thus, there appears to be no substantial difference in years of experience between women and men filling like positions at the state level.

State Advisory Council Makeup

As shown in Table A.1, 47 of the 50 Executive Directors of State Advisory Councils are men. Table A.3 provides more detail about the makeup of the councils. Of the 1377 council members, 429 (31%) are women, while 948 (69%) are men. Also as shown in Table A.3, there is no significant correlation between the number of women on State Advisory Councils and any of the State Level Activity Indexes, except the Advisory Council Index which is based in part on the number of women on the councils. Thus, there is no evidence in these data that a larger proportion of women on the councils serves to spur the state to action, or, looking at it another way, that a larger proportion of men acts as a brake on efforts to achieve sex equity.

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Table A.2

EXPERIENCE OF MEN AND WOMEN IN VARIOUS STATE LEVEL VOCATIONAL EDUCATION LEADERSHIP ROLES

Type of Experience		State Director		Sex Equity Coordinator		Director of Professional Development		Director of Research, Management, and Evaluation		Director of Guidance and Counseling	
Average Number of Years and Standard Deviation		Men (n=49)	Women (n=1)	Men (n=1)	Women (n-49)	Men (n=38)	Women (n=6)	Men (n=45)	Women (n-6)	Men (n=35)	Women (n=10)
Total Years As an Educator	$\overline{X}$	24.5	18.0	18.0	11.2	17.7	18.2	18.5	16.5	19.0	18.7
	S.D.	8.6	0.0	0.0	8.0	8.8	11.6	9.6	10.2	7.1	4.8
Vocational Teacher	$\overline{X}$	6.3	9.0	5.0	4.6	7.8	8.3	5.0	5.5	2.9	2.9
	S.D.	5.4	0.0	0.0	5.4	5.4	6.2	5.5	6.5	3.9	5.3
Counselor	$\overline{X}$	0.4	0.0	0.0	1.1	0.2	2.2*	1.2	0.0	5.9	8.7
	S.D.	1.2	0.0	0.0	2.3	0.8	2.8	2.6	0.0	5.9	5.7
School or District Level Administrator	$\overline{X}$	5.2	0.0	0.0	1.2	2.0	3.1	2.5	3.2	2.7	2.0
	S.D.	6.2	0.0	0.0	2.4	2.9	6.0	4.0	6.0	3.6	4.8
State Level Administrator	$\overline{X}$	11.0	9.0	3.0	3.1	7.9	4.3	8.4	5.8	7.6	5.5
	S.D.	7.2	0.0	0.0	4.3	5.3	4.0	5.4	3.0	4.7	2.9

*p<.001, two tailed t-test; no other differences significant at .1 or beyond.

Table A.2 - continued

Type of Experience (average number of years and standard deviation)		Director of Agricultural[a] Occupations		Trade & Industrial Occupations		Technical Occupations		Marketing & Distribution		Business & Office Occupations		Health Occupations		Home Economics	
		Men (n=21)	Women (n=0)	Men (n=30)	Women (n=0)	Men (n=9)	Women (n=0)	Men (n=17)	Women (n=1)	Men (n=19)	Women (n=6)	Men (n=3)	Women (n=16)	Men (n=0)	Women (n=24)
Total Years As an Educator	$\overline{X}$	22.0	N/A	23.6	N/A	20.9	N/A	16.5	11.0	20.9	20.7	10.3	4.2	N/A	23.3
	S.D.	11.4	N/A	15.6	N/A	8.4	N/A	9.7	0.0	8.6	15.5	16.4	8.2	N/A	9.0
Vocational Teacher	$\overline{X}$	11.0	N/A	9.8	N/A	8.8	N/A	7.0	6.0	8.3	11.7	3.3	8.5	N/A	10.1
	S.D.	6.7	N/A	5.2	N/A	6.3	N/A	5.4	0.0	5.9	2.9	1.2	4.2	N/A	6.7
Counselor	$\overline{X}$	0.5	N/A	0.7	N/A	0.6	N/A	0.2	0.0	0.2	1.7	0.0	1.1	N/A	0.6
	S.D.	0.2	N/A	2.2	N/A	1.1	N/A	0.5	0.0	0.7	4.1	0.0	2.6	N/A	2.3
School or District Administrator	$\overline{X}$	1.1	N/A	2.1	N/A	1.9	N/A	2.1	0.0	2.0	3.0	2.0	0.9	N/A	1.6
	S.D.	3.6	N/A	3.3	N/A	2.0	N/A	4.0	0.0	3.2	6.9	2.0	1.7	N/A	4.5
State Level Administrator	$\overline{X}$	10.3	N/A	9.4	N/A	9.6	N/A	8.4	5.0	10.3	5.8	3.7	5.6	N/A	11.0
	S.D.	8.7	N/A	6.1	N/A	3.6	N/A	6.5	0.0	4.8	7.4	2.3	6.1	N/A	8.6

[a] One Director of Agricultural Occupational did not provide information about his years of experience in education.

Table A.3

MAKEUP OF STATE ADVISORY COUNCIL

N = 50 States

		Number of Members in Each Category																																	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	25	26	29	32	33	36	39	42	X̄	S.D.
Men (all races)	North East															1	1	2						1	2	1				1				20.78	5.81
	North Central									1						2	1		1	2	3		1		1									17.08	3.75
	South										1				1	1		1		1	1	3			1	1	3		1			1	1	22.82	8.48
	West											1	2	1	1	2	2	1		1	1													14.00	2.68
	Total									1	1	1	2	1	2	6	4	4	1	4	5	3	1	1	4	2	3		1	1		1	1	18.96	6.93
Women (all races)	North East					2		1		1		4		1																				8.22	2.74
	North Central						1	2	3	1	1	1	1		2																			8.50	2.60
	South					2	1	1	6	2	1			1			1	1							1									8.94	4.80
	West						3	1	2		1	1	2	1	1																			8.42	2.81
	Total					4	5	5	11	4	3	6	3	3	3		1	1							1									8.58	3.57
White Men	Total					1	2		1	2	1	2	5	5	3	4	5	3	1	2	3	2	4		1			1			2			15.14	6.51
White Women	Total		1	2	5	4	10	9	7	2	2	4		3	1																			6.24	2.75
Black Men	Total	15	6	9	11	1	2	3				1						1	1															2.66	3.54
Black Women	Total	13	16	12	6		1		1									1																1.72	2.45
Hispanic Men (data only from 49 states)	Total	33	8	4	2	1		1																										.65	1.22
Hispanic Women	Total	40	9	1																														.22	.46
American Indian/ Native Alaskan Men	Total	37	12	1																														.28	.49
American Indian/ Native Alaskan Women	Total	40	7	2	1																													.28	.63
Asian/Pacific Islander Men	Total	47	1	1								1																						.26	1.43
Asian/Pacific Islander Women	Total	44	5			1																												.18	.62

The entry in each cell shows the number of states with a given number of members of a given type. Thus, for example, two State Advisory Councils in the North East have four female members, one has six, one has eight, and so on. Similarly, 40 states have no Hispanic women on their State Advisory Councils.

CORRELATION OF PROPORTION OF WOMEN IN STATE ADVISORY COUNCIL AND ACTIVITY INDEXES

1-1 Internal Affirmative Action	1-2 Incentives to Schools	1-5 Teacher Training Awareness	1-7 Employer & Community Action	1-8 Title IX Review	1-9 Model Building & Research	1-10 Monitoring/ Review/Data Collection	1-11 Financial Commitment & Equity	1-12 Advisory Council	1-13 Status of Sex Equity Coordination	1-0 Overall Index
-.040	-.009	.020	-.134	-.250	-.058	-.058	-.063	-.080	.399	-.064
>.5	>.5	>.5	>.2	<.1	>.5	>.5	>.5	>.05	<.2	>.5

Minority representation, with the exception of Hispanics, compares favorably with 1970 census data. The figures for council percentage/population percentages are: Blacks 15.9/11.1, American Indians/Native Alaskans 2.03/0.39, Asians and Pacific Islanders 1.56/0.67. Hispanics make up 3.1% of Advisory Council members, compared with their 5.1 representation in the population as reported in the 1973 Statistical Abstract of the United States.

The law requires each state Advisory Council to have women among its members who have "...backgrounds and experiences in employment and training programs, and who are knowledgeable with respect to the special experiences and problems of sex discrimination in job training and employment and of sex stereotyping in vocational education, including women who are members of minority groups and who have, in addition to such backgrounds and experiences, special knowledge of the problems of discrimination in job training and employment against women who are members of such groups." According to the Executive Directors of the State Advisory Councils, the great majority of councils are in compliance with this requirement (Table A.4). However, the expertise of a single woman could be counted in more than one area.

Table A.4

EXPERTISE OF WOMEN ON STATE ADVISORY COUNCILS[a]

Women on Council with Expertise in This Area		North East (N=9)	North Central (N=12)	South (N-17)	West (N=12)	TOTAL
Employment and Training Programs	Yes	9	12	17	12	50
	No	0	0	0	0	0
	Don't Know	0	0	0	0	0
Sex Discrimination in Job Training and Employment	Yes	9	11	17	11	48
	No	0	1	0	0	1
	Don't Know	0	0	0	1	1
Sex Stereotyping in Vocational Education	Yes	8	10	17	10	45
	No	1	2	0	1	4
	Don't Know	0	0	0	1	1
Discrimination in Job Training and Employment As It Affects Minority Women	Yes	8	10	17	12	47
	No	1	2	0	0	3
	Don't Know	0	0	0	0	0

[a] Based on responses by Executive Directors of the councils.

STATE LEVEL ACTIVITY

The first interview conducted at each state agency was with the State Director of Vocational Education, and the responses of State Directors will be presented and discussed first. They will be followed by the responses of the Sex Equity Coordinators and of other state personnel.

The range of response options for the activities inquired about was as follows.

No Plans	Will do it; formal planning not begun	It is informally implemented	Formal planning has begun	Implementation has begun	It is fully implemented or completed
(1)	(3)	(4)	(5)	(8)	(9)

For purposes of analysis, each response was assigned the number of points indicated in parentheses. The rationale for assigning points in this manner is to give increasingly more points the closer the response is to full implementation. The scale is weighted in such a way that substantially more points are given when implementation is actually underway.*

State Director Responses

Specific questions asked of each State Director along with the abbreviations used in the text are presented below.

- Gather, analyze and disseminate data on male and female students and staff

  > Does the state agency plan to gather, analyze, and disseminate information on the status of women and men, students, and employees in the vocational education programs? (Such information might include enrollment data, cooperative education placement data, work study placement data, job entry placement data, salary data, staffing patterns, etc.)

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*The definitions of the scale points are contained in the Glossary. Interviewees were also asked for documentation of the activities inquired about. On the basis of this documentation and the definitions provided in the Glossary, a categorization was made by the interviewer.

- Take action to correct problems discovered

  Does the state agency plan to develop or support actions to correct any problems discovered through data collection activities?

- Review distribution of grants to assure needs of women addressed

  Does the state agency plan to review the distribution of grants by the State Board to assure that the interests and needs of women are addressed in the projects assisted under the Education Amendments of 1976?

- Systematic review for sex inequity

  As part of the mandated review of all vocational education programs, what plans do you have for a systematic effort to review for sex inequities?

- Monitor laws--state level

  Has provision been made to monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures at the state level?

- Monitor laws--local level

  Has provisions been made to monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures at the local level?

- Mechanism for making recommendations for state plan

  Does the state agency have a mechanism for developing recommendations for the State Plan for overcoming sex inequities?

- Assist LEAs and community colleges

- Assist teacher training institutions

- Assist employers

- Community liaison activities

  Has the state agency planned any program activities or strategies to assist any of the following to improve opportunities for women?

  - Local education agencies/community colleges

  - Teacher Training Institutions

  - Employers

  - Community liaison activities.

A summary of the number of states at each stage of implementation as reported by the State Director is given in Table A.5. This table shows that according to State Directors, states have made the most progress in terms of reviewing grants to see that the needs and interests of women are being met. Systematically reviewing all education programs for sex inequities, and gathering, analyzing, and disseminating data on the status of men and women students and employees, have the next highest means respectively. State Directors report the least amount of activity with respect to working with employers to improve opportunities for women, monitoring laws at the local level, and community liaison activities.

The lowest mean response of State Directors is 3.5 for activities to assist employers to improve opportunities for women. A mean score of 3.5 is halfway between good intentions (3) and informal implementation (4); however, it should be noted that 15 of the states have no plans at all in this regard. Five of the eleven means are above 6; the highest being 7.4. These indicate an average implementation level between formal planning and beginning implementation. Approximately two-thirds of the states have begun implementation or fully implemented these activities. These five are:

- Gather, analyze, and disseminate data on male and female students and employers in vocational education.
- Review the distribution of grants by the State Board to assure that the interests and needs of women are addressed.
- Systematic effort to review for sex inequities.
- Monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion at the state level.
- Assist LEA/Community Colleges to improve opportunities for women.

Four of the five activities which are being implemented by approximately two-thirds of the states are review and analysis activities rather than activities designed to implement remediation strategies. Furthermore, 40% of the states have not begun planning to take corrective action, and another 8% have only done so on an informal basis.

Table A.5

NUMBER AND PERCENT OF STATES AT EACH IMPLEMENTATION STAGE ACCORDING TO STATE DIRECTOR

Activity		(1) Don't know	(1) No Plans	(3) Will do it; formal plan not begun.	(4) Informally imple-mented	(5) Formal planning begun	(8) Imple-mentation begun	(9) Fully imple-mented or completed	Total	$\bar{X}$*	Std. Dev.
Gather, analyze, and disseminate data on male and female students and staff	N	2	1	6	1	7	19	14	50	6.76	2.53
	%	4	2	12	2	14	38	28	100		
Take action to correct problems discovered	N	1	5	14	4	10	10	6	50	4.96	2.64
	%	2	10	28	8	20	20	12	100		
Review distribution of grants to assure needs of women addressed	N	0	3	3	2	2	20	20	50	7.40	2.37
	%	0	6	6	4	4	40	40	100		
Systematic review of sex inequity	N	0	1	7	2	9	13	18	50	6.82	2.41
	%	0	2	14	4	18	26	36	100		
Monitor laws--state level	N	3	8	1	3	3	12	20	50	6.34	3.26
	%	6	16	2	6	6	24	40	100		
Monitor laws--local level	N	6	14	4	4	5	9	8	50	4.34	3.28
	%	12	28	8	8	10	18	16	100		
Mechanism for making recommendations for state plan	N	1	3	6	11	4	14	11	50	5.94	2.70
	%	2	6	12	22	8	28	22	100		
Assist LEA and community colleges	N	2	2	5	3	6	17	15	50	6.64	2.75
	%	4	4	10	6	12	34	30	100		
Assist Teacher Training Institutions	N	7	7	5	3	5	12	11	50	5.22	3.28
	%	14	14	10	6	10	24	22	100		
Assist employers	N	8	15	8	6	2	4	7	50	3.52	3.01
	%	16	30	16	12	4	8	14	100		
Community liaison activities	N	8	7	6	7	5	7	10	50	4.64	3.15
	%	16	14	12	14	10	14	20	100		

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

Approximately half of the state directors report they have begun implementation or have fully implemented the following:

- A mechanism for developing recommendations for the State Plan for overcoming sex inequities.
- Assist teacher training institutions to improve opportunities for women.

A third of the directors report their states have begun implementation or have fully implemented:

- Take action to correct any problems discovered through data collection activities
- Monitor laws prohibiting sex discrimination in hiring, firing, and promotion at the local level
- Community liaison activities to improve opportunities for women.

Only a fifth of the states report they are assisting employers to improve opportunities for women.

While most State Directors indicate they presently do, or will, assist the LEAs to improve opportunities for women, fewer of them have plans to assist teacher training institutions, or work with employers or the community. Twenty-eight, 46, and 30 percent respectively either have no plans or do not know what their plans are with respect to these activities. Forty percent of the State Directors indicated "don't know" or "no plans" when asked if provisions have been made to monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures at the local level. Thus their efforts are more strongly focused within the vocational education community than on its interface with other agencies. While they intend to assist the LEAs in improving opportunities for women, almost half do not see this taking the form of monitoring laws.

Sex Equity Coordinator Responses

Perhaps the most important person in the state agency in terms of implementing the sex equity provisions of the legislation is the Sex Equity Coordinator--the position which was mandated in the legislation. However, the Coordinator must obviously work in cooperation with the entire vocational education community. Part of the data collection efforts focused on the role and responsibilities of these Equity Coordinators.

Each State Director was asked whether a Sex Equity Coordinator had been appointed in accord with the legislation. In 45 of the participating 49 states and the District of Columbia, State Directors reported that a Coordinator had been appointed who was a full-time employee with no other duties. All but one of these individuals was female. Two states had hired Coordinators who were full-time employees with additional duties. In one of these states the Sex Equity Coordinator is also the Title IX and Affirmative Action Coordinator; in the second state the Sex Equity Coordinator is also the Director of Guidance and Counseling. Three State Directors reported that a Coordinator had not been appointed. In all three cases they indicated that a suitable candidate had not been found in their search. However, all three had appointed an acting coordinator; two of these were full time with no other duties, while one was full time with other duties.

At a later point in this chapter we will examine the role of the Sex Equity Coordinators in greater depth, including their backgrounds, positions in the state structure, and functions. First, let us report the responses of the Sex Equity Coordinators concerning the level of implementation of activities designed to encourage sex equity.

The Coordinators were asked about three basic categories of activities: activities to identify and overcome inequities; data collection, dissemination, and monitoring activities; and affirmative action activities for staff. The specific questions asked are presented below.

Activities to identify and overcome inequities:

- Programs to make students aware of inequities

  Fund or sponsor activities, programs, or curricula to make students aware of potential sex inequities in education and the labor force, and their rights as employees

- Programs to make students aware of or encouraged to enter nontraditional programs

  Fund or sponsor programs or activities for students to make them aware of, or encourage them to enter, nontraditional programs

- Special job development, placement, or follow-up of nontraditional students

  Fund or sponsor special job development, job placement, or job follow-up programs or activities for students in nontraditional occupational areas

- Encourage female representation on all local advisory councils

- Encourage male representation on all local advisory councils

Data Collection, Dissemination, and Monitoring Activities

- Gather/disseminate information on programs to reduce inequities

  Gather and disseminate information to create awareness of programs and activities in vocational education designed to reduce sex inequities

- Gather/disseminate data on males and females in vocational education

  Gather, analyze, and disseminate data on the status of men and women students and employees in the state's vocational education programs

- Review grants to assure women's interests are addressed

  Review the distribution of grants by the State Board to assure that the interests and needs of women are included among the topics addressed

- Review local proposals for women's interests

  Review proposals from local school districts to assure that the interests and needs of women are included among the topics addressed

- Review vocational education programs in the state for sex bias

- Monitor laws prohibiting discrimination

  Monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures relating to vocational education

- Review funding to ensure sex equity

  Review funding practices to assure that guidelines regarding sex equity were carried out

- Review local curricula

  Sponsor or institute procedures to review local curriculum materials for sex equity

Affirmative Action Activities for Staff

- Recruitment to hire females for state-level jobs usually held by males

  Recruitment activities, procedures, programs to hire females for state level positions usually held by males

- Recruitment to hire males for state-level jobs usually held by females

  Recruitment activities, procedures, programs to hire males for state level positions usually held by females

- Incentives to schools to hire/promote females in traditionally male fields

  Incentives to schools to hire or promote women to teach in traditionally male fields (examples of incentives include funds, evaluation points in proposals, etc.) (A traditionally male field is one where 80 percent or more of those in that field are men.)

- Incentives to schools to hire/promote males in traditionally female fields

  Incentives to schools to hire or promote men to teach in traditionally female fields (A traditionally female field is one where 80 percent or more of those in that field are women.)

The Sex Equity Coordinator responses to these items are presented in Tables A.6a, A.6b, and A.6c.

Table A.6a shows that according to Sex Equity Coordinators, states are generally at the formal planning stages of implementation. States are furthest along in terms of encouraging female and male representation on local advisory councils (although 14% of the Coordinators felt encouraging male representation on local advisory councils was "not applicable," pre-

Table A.6a

ACTIVITIES TO IDENTIFY AND OVERCOME INEQUITIES: RESPONSES OF SEX EQUITY COORDINATORS

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	Total N	$\bar{X}$*	Std. Dev.
Programs to make students aware of inequities	N	2	0	4	9	1	15	10	9	50	5.65	2.59
	%	4	0	8	18	2	30	20	18			
Programs to make students aware of or encouraged to enter nontraditional programs	N	2	0	5	9	2	11	10	11	50	5.71	2.77
	%	4	0	10	18	4	22	20	22			
Special job development, placement, follow-up for nontraditional students	N	5	1	7	13	1	5	8	10	50	5.11	3.06
	%	10	2	14	26	2	10	16	20			
Encourage female representation on local advisory councils	N	0	1	2	4	5	4	19	15	50	6.84	2.52
	%	0	2	4	8	10	8	38	30			
Encourage male representation on local advisory councils	N	7	2	5	4	5	3	11	13	50	6.02	3.07
	%	14	4	10	8	10	6	22	26			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column. Not applicable, not included.

sumably because they assumed that virtually all councils have male representation).

On the average, Sex Equity Coordinators report that they are at the formal planning stage for funding or sponsoring the activities and programs which deal directly with students. (The first three activities listed in Table B.6a.) Thirty-eight, 42, and 36 percent respectively of the Coordinators report that their states have begun or are fully implementing these activities. Twelve, 14, and 26 percent of Sex Equity Coordinators feel these activities are either not applicable, or they don't know or have no plans to implement them.

Table A.6b shows that Equity Coordinators in general report higher levels of activity with respect to data collection, dissemination, and monitoring than to the activities discussed above. Reviewing grants and proposals, and gathering and analyzing information on students, staff, and programs to reduce inequities appear to be receiving the most attention according to Sex Equity Coordinators. Over 60% of the states are implementing these activities.

In response to the question, "Is your state currently implementing or planning to implement any recruitment, hiring, or promotion programs or activities for state or local staff for positions normally held by persons of the other sex?," 14 Sex Equity Coordinators responded negatively or said they did not know of any. For the 36 who responded affirmatively, additional questions were asked regarding the type of affirmative action activities they were undertaking. The responses of these 36 individuals are presented in Table A.6c.

For affirmative action activities for state level staff, about half of the responding coordinators report they are planning such activities, and half report these activities are currently being implemented. However the preceeding section which described the characteristics of state level staff indicates that these activities have not yet had a great effect. Those data showed that state level leadership is overwhelmingly white and male. The majority of women holding state level leadership positions are either

Table A.6b

DATA COLLECTION, DISSEMINATION, AND MONITORING ACTIVITIES: RESPONSES OF SEX EQUITY COORDINATORS

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	Total	$\bar{X}$*	Std. Dev.
Gather/disseminate information on programs to reduce inequities	N	0	0	1	2	1	10	19	17	50	7.32	2.02
	%	0	0	2	4	2	20	38	34			
Gather/disseminate data on males and females in vocational education	N	0	0	2	4	0	9	16	19	50	7.16	2.32
	%	0	0	4	8	0	18	32	38			
Review grants to assure women's interests are assessed	N	0	0	3	2	2	9	9	25	50	7.18	2.48
	%	0	0	6	4	4	18	18	50			
Review local proposals for women's interests	N	1	1	2	3	1	8	11	23	49	7.16	2.50
	%	2	2	4	6	2	16	22	46			
Review all vocational education programs for sex bias	N	0	1	0	3	2	12	17	15	50	6.98	2.15
	%	0	1	0	6	4	24	34	30			
Monitor laws prohibiting discrimination	N	2	2	2	8	7	11	5	13	48	5.58	2.69
	%	4	4	4	16	14	22	10	26			
Review funding to ensure sex equity	N	2	2	2	5	3	6	12	18	48	6.65	2.74
	%	4	4	4	10	6	12	24	36			
Review local curricula	N	2	1	3	6	4	10	15	9	48	6.02	2.61
	%	4	2	6	12	8	20	30	18			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column. N varies since respondents stating "Not applicable" were omitted in computing means.

Table A.6c

IMPLEMENTATION STAGE IN THOSE STATES HAVING AFFIRMATIVE ACTION ACTIVITIES[a]

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	Total	$\bar{X}$*	Std. Dev.
Recruitment to hire females for state-level jobs usually held by males	N	0	0	0	5	6	8	9	8	36	6.19	2.29
	%	0	0	0	10	12	16	18	16			
Recruitment to hire males for state-level jobs usually held by females	N	4	1	5	7	4	2	7	6	32	5.09	3.04
	%	8	2	10	14	8	4	14	12			
Incentives to schools to hire/promote females in traditionally male fields	N	0	0	18	8	2	7	0	1	36	2.61	1.95
	%	0	0	36	16	4	14	0	2			
Incentives to schools to hire/promote males in traditionally female fields	N	0	0	19	2	3	6	0	0	36	2.36	1.59
	%	0	0	38	4	6	12	0	0			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

N varies since respondents stating "not applicable" were omitted in computing means.

[a] On the original screening question, 14 states reported no affirmative action activity.

Sex Equity Coordinators, Directors of Home Economics, or Directors of Health Occupations.

The Sex Equity Coordinators report a much higher level of affirmative action activity for state staff, than with respect to providing incentives to schools. More than a third of the responding Coordinators report no plans to provide staffing incentives to schools. This percentage is even larger when the 14 states who reported no affirmative action activities are considered.

State Level Personnel Responses

Many of the same questions which were asked of the Sex Equity Coordinators were also asked of the other state level vocational staff we interviewed. State Directors of professional development, research, and guidance and counseling, as well as three occupational program specialists, were interviewed at each state education agency. Tables A.7a and A.7b report the mean responses for these other personnel to the same items asked of the Sex Equity Coordinators. As do the Sex Equity Coordinators, other state personnel report more activity in terms of encouraging representation on advisory councils and on review and analysis activities in general, than they do on activities aimed directly at students.

Table A.8a allows one to compare the mean responses of the State Director, the Sex Equity Coordinator, and all the other state level personnel to the three high scoring data collection, dissemination, and monitoring activities. In each case the State Directors and Sex Equity Coordinators report more implementation than do the other types of state level personnel combined. The greatest reported differences are reported in the review of the distribution of grants to assure that the needs of women are addressed.

Table A.8b shows the rank orders of the mean responses of occupation program specialists concerning implementation of activities designed to make students aware of inequities or to encourage them to enter nontraditional fields. The highest level of implementation on both items is reported by Health Specialists; however, these means indicate only that formal planning has begun. These results indicate that according to the

Table A.7a

MEAN* LEVEL OF ACTIVITIES TO IDENTIFY AND OVERCOME INEQUITIES: RESPONSES OF STATE-LEVEL PERSONNEL

ACTIVITY		Professional Development	Research	Health	Home Economics	Business	Distributive Education	Technical	Trade and Industry	Agriculture	Counseling and Guidance	Other	TOTAL
Program to make students aware of inequities	$\bar{X}$	5.30	5.88	5.35	4.50	4.68	4.63	2.63	5.17	3.47	5.78	4.67	5.17
	S.D.	2.21	3.18	3.18	2.97	2.93	3.58	2.56	3.00	2.67	3.13	4.04	3.06
	N	33	41	17	22	25	16	8	30	19	40	3	306
Program to encourage non-traditional student enrollment	$\bar{X}$	6.15	5.83	5.61	5.45	4.44	4.20	4.56	5.28	5.02	5.53	4.33	5.44
	S.D.	2.74	3.07	3.11	3.14	2.66	3.59	3.81	3.05	2.95	3.16	3.51	3.01
	N	33	41	18	22	25	15	9	29	19	40	3	306
Special job development/placement/follow-up for non-traditional students	$\bar{X}$	4.69	3.46	3.33	3.06	1.88	2.93	4.38	3.52	2.43	4.61	2.00	3.76
	S.D.	3.27	2.80	3.12	2.90	1.48	2.76	3.46	2.52	2.50	3.29	1.73	3.00
	N	36	41	18	17	25	15	8	27	21	36	3	296
Encourage female representation on local advisory councils	$\bar{X}$	6.25	5.81	5.77	7.37	6.26	7.20	7.11	6.07	5.52	6.52	5.67	6.36
	S.D.	2.80	3.27	3.35	2.54	2.82	2.40	2.15	3.14	3.08	3.08	4.04	2.90
	N	36	36	13	19	23	15	9	28	21	29	3	286
Encourage male representation on local advisory councils	$\bar{X}$	5.38	4.91	5.20	7.26	6.24	6.27	8.00	6.74	4.73	6.04	5.67	5.87
	S.D.	3.28	3.51	3.14	2.43	2.84	3.07	1.55	3.11	3.41	3.47	4.04	3.19
	N	34	34	15	23	21	11	6	19	15	26	3	254

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[*] Values used in computing means are in headings of Table A.6c.
N varies since respondents stating "not applicable" were omitted in computing means.

Table A.7b

MEAN* LEVEL OF DATA COLLECTION, DISSEMINATION, AND MONITORING ACTIVITIES: RESPONSES OF STATE-LEVEL PERSONNEL

ACTIVITY		Professional Development	Research	Health	Home Economics	Business	Distributive Education	Technical	Trade and Industry	Agriculture	Counseling and Guidance	Other	TOTAL
Gather/disseminate information on programs to reduce inequities	$\bar{X}$	6.07	5.70	5.63	4.54	5.24	4.00	4.22	4.28	4.27	5.48	2.67	5.47
	S.D.	2.87	2.85	2.75	2.84	3.07	3.39	2.95	3.23	2.90	3.10	1.53	2.99
	N	42	47	19	24	25	16	9	29	22	40	3	330
Gather/disseminate data on males and females in vocational education	$\bar{X}$	6.39	6.85	7.11	6.67	7.43	7.44	6.33	6.45	5.91	5.13	5.33	6.63
	S.D.	2.96	2.84	2.71	2.87	2.46	2.66	3.46	3.17	2.69	3.53	2.31	2.87
	N	38	47	19	24	23	18	9	29	22	31	3	316
Review grants to assure women's interests are addressed	$\bar{X}$	6.97	6.58	5.31	5.38	5.86	5.81	5.29	4.27	7.41	5.57	4.33	6.16
	S.D.	2.89	2.95	3.77	3.16	3.47	3.87	3.73	3.48	2.53	3.40	3.51	3.21
	N	38	43	13	16	22	16	7	22	17	37	3	288
Review local proposals for women's interests	$\bar{X}$	7.77	7.51	5.79	7.11	6.82	6.06	8.75	6.31	6.78	5.83	4.33	6.82
	S.D.	2.13	2.30	3.19	2.63	3.14	3.36	0.46	3.20	2.58	3.29	3.51	2.84
	N	35	45	14	18	22	16	8	26	18	40	3	298
Review all vocational education programs for sex bias	$\bar{X}$	6.54	6.56	6.16	7.35	5.52	6.78	6.67	5.97	6.32	5.91	3.00	6.39
	S.D.	2.96	2.82	3.00	2.21	3.07	2.76	3.12	2.99	3.33	2.96	1.73	2.84
	N	35	43	19	23	25	18	9	29	22	36	3	316
Monitor laws prohibiting discrimination	$\bar{X}$	6.38	6.06	4.21	5.56	5.22	5.00	5.67	5.55	5.00	5.19	2.50	5.52
	S.D.	3.43	3.46	3.70	3.56	3.90	3.74	3.14	3.55	3.32	3.58	2.12	3.37
	N	29	36	14	16	18	15	6	20	13	27	2	245
Review funding to ensure sex equity	$\bar{X}$	6.71	7.38	4.79	6.50	6.43	5.19	7.57	6.08	6.11	5.85	4.33	6.39
	S.D.	3.07	2.77	3.26	2.87	2.98	3.87	2.94	3.25	3.35	3.17	3.51	3.09
	N	38	41	17	23	21	16	7	25	19	34	3	300
Review local curricula	$\bar{X}$	6.15	6.22	6.65	6.74	5.61	5.76	5.25	6.62	6.18	6.26	2.00	6.13
	S.D.	3.28	3.00	2.96	2.58	3.41	3.42	3.37	3.05	3.14	3.05	1.73	3.02
	N	34	41	17	23	23	17	8	26	22	34	3	293

*Values used in computing means are in headings of Table A.6c.

N varies since respondents stating "not applicable" were omitted when computing means.

Table A.8a

MEAN RESPONSES OF STATE DIRECTOR, SEX EQUITY COORDINATOR, AND OTHER STATE PERSONNEL TO SPECIFIC EQUITY ACTIVITIES

Activity	Respondent								
	State Director			Sex Equity Coordinator			Other SEA Personnel		
	$\bar{X}$	N	S.D.	$\bar{X}$	N	S.D.	$\bar{X}$	N*	S.D.
Gather, analyze, disseminate data on males and females in vocational education	6.76	50	2.53	7.16	50	2.32	6.63	316	2.81
Review distribution of grants to assure needs of women are addressed	7.40	50	3.37	7.18	50	2.48	6.16	288	3.40
Systematic review of all vocational education programs for sex bias	6.82	50	2.41	6.98	50	2.15	6.39	316	2.84

*N varies since respondents stating "not applicable" were omitted in computing means.

Table A.8b

RANK ORDERED MEAN LEVEL OF IMPLEMENTATION AS REPORTED BY STATE LEVEL OCCUPATIONAL PROGRAM SPECIALIST ON TWO ACTIVITIES

	Programs to Make Students Aware of Inequities				Programs to Encourage Nontraditional Student Enrollment		
Area	$\bar{X}$	N*	S.D.	Area	$\bar{X}$	N*	S.D.
Health	5.35	17	3.18	Health	5.61	18	3.11
Trade & Industry	5.17	30	3.00	Home Economics	5.45	22	3.14
Business	4.68	25	2.93	Trade & Industry	5.28	29	3.05
Distributive Education	4.63	16	3.58	Agriculture	5.02	19	2.95
Home Economics	4.50	22	2.97	Technical	4.56	9	3.81
Agriculture	3.47	19	2.67	Business	4.44	25	2.66
Technical	2.63	8	2.56	Distributive Education	4.20	15	3.59

*N varies since respondents stating "not applicable" were omitted in computing means.

state program specialists their states are not yet engaged in funding or sponsoring these kinds of programs for students, but that they are planning to do so or consider them implemented on an individual basis. Special job development, placement, and follow-up programs or activities for students in nontraditional occupational areas are receiving even less attention at the moment. It should be noted that distributive education which has the lowest mean for encouraging nontraditional enrollment is already the most mixed with respect to student enrollments.

Executive Director Responses

The role that the State Advisory Council for Vocational Education plays in the effort to encourage equity was a further subject of investigation. Seventy-two percent of the Executive Directors of State Advisory Councils report that the issue of sex equity has been on a council meeting agenda; 28% report it has not. The Executive Director of each council was asked whether provisions have been made for the council to evaluate state activities to eliminate sex inequities. Table A.9a presents the results. Thirty-four percent of the Executive Directors report their states have already made provision to evaluate activities to reduce inequities. Thirty-six percent indicated they have not done so, but are planning to. Twenty-eight percent report no plans in this regard, and 2% did not know their plans. Those directors responding other than negatively were asked if specific responsibility for the evaluation had been assigned. These results are displayed in Table A.9b. Twenty states have made a specific assignment, while 13 have not, and one Executive Director was uncertain. Thus it appears that the State Advisory Councils in approximately 20 states are taking an active role in terms of evaluating their state's equity efforts.

State Level Activity Indexes

The activities specified in the legislation and about which we obtained information during data collection, were grouped into ten separate areas of state level activity. (Several additional areas were identified for school level activity and will be discussed later.) The responses of all individuals in a state to a cluster of items addressing each of the ten areas were combined to form ten activity indexes. Details on the items which went into

Table A.9a

IS THE ADVISORY COUNCIL MAKING PROVISIONS TO EVALUATE STATE SEX EQUITY ACTIVITY? RESPONSES OF EXECUTIVE DIRECTORS OF STATE ADVISORY COUNCILS

Response		USOE Regions									TOTAL
		I & II	III	IV	V	VI	VII	VIII	IX	X	
No	N	2	0	2	2	3	1	2	1	1	14
	%	25.0	0.0	25.0	33.3	60.0	25.0	40.0	25.0	25.0	28.0
Yes, we are planning to	N	3	2	0	3	2	2	3	1	2	18
	%	37.5	33.3	0.0	50.0	40.0	50.0	60.0	25.0	50.0	36.0
Yes, we have done it	N	3	4	6	1	0	1	0	2	0	17
	%	37.5	66.7	75.0	16.7	0.0	25.0	0.0	50.0	0.0	34.0
Don't know	N	0	0	0	0	0	0	0	0	1	1
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	2.0
TOTAL	N	8	6	8	6	5	4	5	4	4	50
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table A.9b

HAS A COUNCIL MEMBER BEEN GIVEN RESPONSIBILITY FOR EVALUATION OF STATE SEX EQUITY ACTIVITY?

RESPONSES OF EXECUTIVE DIRECTORS OF STATE ADVISORY COUNCILS

N = 34*

Response		USOE Regions									TOTAL
		I & II	III	IV	V	VI	VII	VIII	IX	X	
No	N	2	2	2	1	0	2	2	1	1	13
	%	33.3	33.3	40.0	25.0	0.0	66.7	66.7	33.3	50.0	38.2
Yes	N	4	4	3	3	2	1	1	1	1	20
	%	66.7	66.7	60.0	75.0	100.0	33.3	33.3	33.3	50.0	58.8
Don't know	N	0	0	0	0	0	0	0	1	0	1
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	2.9
TOTAL	N	6	6	5	4	2	3	3	3	2	34
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Fourteen Executive Directors responded negatively to the previous questions regarding council provisions to evaluate state equity activity. Two Executive Directors did not respond.

these indexes and how they were constructed are presented in the Data Analysis Procedures Section of Appendix A. The ten state level indexes and a brief description of each are presented below. The leading "1" in the index numbers indicates that this is an index of state level activity. (Elsewhere, the leading number is 3 to indicate a school level index.) There are gaps in the index numbers because some areas of activity are addressed at the school level only.

Index 1.1	Internal Affirmative Action - reflects the degree to which states are making efforts to recruit males and females for state level positions normally held by the opposite sex.
Index 1.2	Providing Incentives to Schools - provides information on the degree to which states are offering incentives to schools and LEAs to recruit nontraditional students and/or staff.
Index 1.5	Teacher Training and Awareness Activities - indicates the extent to which states are conducting activities for state and local staff, including establishing liaison with teacher training institutions.
Index 1.7	Employer and Community Liaison Activities - reflects the degree to which states report they are working with employers and in the community, including encouraging both male and female representation on local advisory councils.
Index 1.8	Title IX Review Activities - reports the state's activity relative to conducting required Title IX self-evaluations and establishing liaison between state level Title IX and vocational education staff.
Index 1.9	Model Building and Research Activities - provides information on the degree to which states report funding or sponsoring model programs and research related to sex inequities.
Index 1.10	Monitoring, Reviewing, and Data Collection Activities - indicates the level of state activity with respect to gathering data related to, and reviewing programs for, sex inequities.
Index 1.11	Financial Commitment to Sex Equity - based on states' responses to questions regarding adding funds to the $50,000 set aside required in the legislation and whether or not the Sex Equity Coordinator has a budget to administer.

Index 1.12 Advisory Council Make-Up Activities - reflects the degree to which women with qualifications specified in the legislation are on the Council and the degree to which the Council is involved in the effort to reduce inequities.

Index 1.13 Status of the Sex Equity Coordinator - indicates whether or not states have made an effort to hire and have hired full-time, permanent personnel as specified in the legislation.

In addition, an overall state activity index was developed. This index combined the preceding ten indexes, and weighted them equally.

In order to verify that these ten indexes were in fact separate measures of activity, an intercorrelation matrix was run among the ten separate indexes. This matrix is presented in Table A.10 While many of the correlations are significantly different from zero, they are low enough to make it clear that no two of these indexes measure the same thing. Therefore it is reasonable to use them as separate measures.

Table A.11 shows the minimum and maximum score possible on each of the state level activity indexes and the range of scores which was obtained by the 49 states and the District of Columbia which participated in the study at the state agency level.

The primary reason for developing the separate activity indexes is to see how state efforts in given areas are related to efforts and activities elsewhere. Thus it is primarily an analysis tool. It does, however, allow an additional view of the different areas in which states are placing their efforts. Subsequent tables will present means on state activity indexes for various groups and subgroups. The tables are set up in such a way as to facilitate comparisons among groups, on any index, via comparison of the numbers in that column. Note, however, that comparison across a row, i.e., comparison among the various means for a single group, may be misleading since the scales for the various indexes are not directly comparable. Although each index has a national mean of 50, their dispersions differ considerably.* This lack of direct comparability across indexes is probably

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* This is due to a statistical artifact resulting from the fact that different indexes are made up of different numbers of subindexes.

Table A.10

INTERCORRELATIONS AMONG STATE ACTIVITY INDEXES

N = 50*

	Index No.									
	1.1	1.2	1.5	1.7	1.8	1.9	1.10	1.11	1.12	1.13
Index 1.1 Internal Affirmative Action	–	.45	.14	.34	.07	.34	.17	.17	–.04	.19
Index 1.2 Providing Incentives to Schools		–	.30	.06	.11	.38	.18	.39	.07	.22
Index 1.5 Teacher Training and Awareness			–	.15	.09	.31	.33	.05	.06	–.02
Index 1.7 Employer and Community Liaison Activities				–	–.07	.41	.58	.18	–.02	.26
Index 1.8 Title IX Review					–	.26	.19	–.01	–.13	–.11
Index 1.9 Model Builing/ Research						–	.65	.15	.20	.18
Index 1.10 Monitoring/ Review/Data Collection							–	.06	.09	.16
Index 1.11 Financial Commitment to Sex Equity								–	.10	.32
Index 1.12 Advisory Council Makeup and Activities									–	.44
Index 1.13 Status of Sex Equity Coordinator										–

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*Based on 49 states and the District of Columbia

Table A.11

STATE ACTIVITY INDEX
POSSIBLE AND ACTUAL RANGE OF SCORES

Number	Index	Range of Scores Possible Range	Actual Range
1.1	Internal Affirmative Action Activities	41 - 71	41 - 64
1.2	Providing Incentives to Schools	44 - 85	47 - 65
1.5	Teacher Training and Awareness Activities	20 - 60	20 - 60
1.7	Employer and Community Liaison Activities	37 - 64	43 - 63
1.8	Title IX Review Activities	20 - 57	20 - 57
1.9	Model Building and Research Activities	33 - 67	40 - 63
1.10	Monitoring, Review, and Data Collection Activities	25 - 69	41 - 62
1.11	Financial Commitment to Sex Equity	30 - 65	30 - 65
1.12	Advisory Council Makeup and Activities	14 - 131*	18 - 74
1.13	Status of the Sex Equity Coordinator	2 - 54	12 - 54
1.0	Overall State Activity Index	30 - 72	40 - 60

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*This maximum is considerably larger than that for most of the other indexes because one of the components of this composite is a count of the number of women on the State Advisory Council. To get the maximum score requires that all members of the Council be women (clearly an extremely unlikely event), and further assumes that the Council has as many as 57 members (a size that occurs in only one state).

an advantage since it precludes drawing of misleading conclusions which would be based on the incorrect assumption that the sets of questionnaire items constituting the different scales all represent the same degrees of activity and have the same importance in making progress towards the elimination of inequities.

The data are presented not only in terms of a national aggregate but also in terms of two different regional aggregates--the United States Office of Education (USOE) Regions, and the four major census bureau areas. In reporting data by USOE region, Regions I and II have been collapsed because USOE Region II includes only two states (New York and New Jersey). The states in our sample which fall into each of the Regions was shown in the introduction to this volume.

Table A.12a gives an indication of where the different USOE Regions are placing their emphasis with respect to the ten activity indexes and how they compare on the overall state activity index. For each region the mean and range of scores are given. Table A.12b presents the same information for the four major Census Bureau Areas. In general, our data suggest that USOE Regions I and II combined, and region IX are scoring higher than the other regions in terms of equity efforts, while Regions VII, VIII, and X are scoring lower. Using census bureau regions, the North East appears to be making somewhat greater equity efforts than the West.

To facilitate interpretation of numerical values on the activity indexes Table A.13 is provided. This table has three columns of point definition for each index. The middle one of these three columns represents the mean value. It is flanked on either side by points two-thirds of a standard deviation below and above the mean, respectively. These two outer points define a range which, if the distribution is normal, includes the middle 50% of the cases. The primary function of these indexes appears in other chapters as they are correlated with activities at the local and school levels, and with various opinions and perceptions of inequity and equity efforts.

Table A.12a

STATE ACTIVITY INDEX MEANS AND RANGE OF SCORES BY USOE REGIONS

USOE Region	No. of States		1.1 Internal Affirmative Action	1.2 Incentives to Schools	1.5 Teacher Training Awareness	1.7 Employer and Community Liaison	1.8 Title IX Review	1.9 Model Building and Research	1.10 Monitoring/Review/Data Collection	1.11 Financial Commitment and Equity	1.12 Advisory Council	1.13 Status of Sex Equity Coordinator,	1.0 Overall Index
I & II	8	$\bar{X}$	53.14	55.53	56.08	54.90	52.00	54.75	58.15	54.11	48.71	50.94	54.26
		(range)	(42-60)	(48-65)	(47-60)	(45-63)	(39-57)	(48-61)	(50-66)	(48-65)	(31-58)	(33-54)	(49.57)
III	6	$\bar{X}$	48.01	50.74	51.16	52.62	44.01	53.04	54.53	50.46	61.49	54.00	51.96
		(range)	(41-58)	(47-55)	(37-58)	(49-56)	(26-57)	(49-58)	(46-61)	(30-65)	(51-74)	(55)	(49-55)
IV	8	$\bar{X}$	48.48	52.58	49.84	53.25	49.68	49.17	54.77	49.74	52.20	54.00	51.47
		(range)	(44-51)	(47-60)	(33-60)	(50-58)	(39-57)	(45-53)	(50-62)	(48-65)	(48-61)	(54)	(48-53)
V	6	$\bar{X}$	55.80	53.78	47.55	52.57	53.29	51.61	52.50	47.55	51.68	54.00	52.30
		(range)	(48-64)	(48-62)	(33-60)	(43-61)	(45-57)	(45-63)	(41-64)	(30-65)	(35-57)	(54)	(46-60)
VI	5	$\bar{X}$	48.15	51.78	48.71	53.68	54.94	49.99	58.05	47.55	46.31	54.00	51.60
		(range)	(41-61)	(47.57)	(33-60)	(45.57)	(45-57)	(47-53)	(52-60)	(30-65)	(43-49)	(54)	(49-53)
VII	4	$\bar{X}$	43.77	51.66	47.96	56.33	46.59	50.22	54.55	51.92	43.29	54.00	50.60
		(range)	(41-48)	(47-56)	(20-60)	(50-60)	(26-57)	(43-55)	(49-62)	(48-65)	(34-54)	(54)	(46-54)
VIII	5	$\bar{X}$	45.09	49.67	53.38	51.53	53.70	48.27	52.61	44.05	44.76	30.10	48.04
		(range)	(41-49)	(47-53)	(47.58)	(47-55)	(39-57)	(45-54)	(47-61)	(30-65)	(26-58)	(12-54)	(44-50)
IX	4	$\bar{X}$	55.61	54.76	46.71	55.94	54.32	52.39	50.61	56.29	50.65	54.00	53.37
		(range)	(44-62)	(51-61)	(33-60)	(54-58)	(45-57)	(40-62)	(43-62)	(48-65)	(48.55)	(54)	(50-57)
X	4	$\bar{X}$	49.05	49.17	42.97	50.01	38.86	47.25	46.22	47.55	45.99	44.06	46.84
		(range)	(46-53)	(47-53)	(33-52)	(44-57)	(20-57)	(42-53)	(44-48)	(30-65)	(18.58)	(16-54)	(40-50)

Table A.12b

STATE ACTIVITY INDEX MEANS AND RANGE OF SCORES BY FOUR CENSUS BUREAU AREAS

Census Bureau Area	No. of States		1.1 Internal Affirmative Action	1.2 Incentives to Schools	1.5 Teacher Training Awareness	1.7 Employer and Community Liaison	1.8 Title IX Review	1.9 Model Building and Research	1.10 Monitoring/ Review/Data Collection	1.11 Financial Commitment and Equity	1.12 Advisory Council	1.13 Status of Sex Equity Coordinator.	1.0 Overall Index
North East	9	$\overline{X}$ (range)	52.04 (42-60)	55.43 (48-65)	56.34 (47-60)	54.23 (45-63)	51.23 (39-57)	54.26 (48-61)	56.75 (46-66)	55.32 (48-65)	49.44 (31-58)	51.23 (33-54)	53.92 (49-57)
North Central	12	$\overline{X}$ (range)	50.34 (41-64)	52.70 (47-62)	48.52 (20-60)	54.03 (43-61)	51.74 (26-57)	50.84 (43-63)	53.78 (41-64)	49.01 (30-65)	46.65 (26-57)	51.80 (33-54)	51.41 (46-60)
South	17	$\overline{X}$ (range)	48.96 (41-61)	51.93 (47-60)	49.75 (33-60)	53.24 (45-58)	49.05 (26-57)	50.58 (45-58)	55.92 (50-62)	49.61 (30-65)	53.84 (43-74)	54.00 (54)	51.81 (48-55)
West	12	$\overline{X}$ (range)	49.23 (41-64)	50.63 (47-61)	47.13 (33-60)	52.51 (44-58)	48.65 (20-57)	49.31 (40-62)	49.81 (43-62)	47.55 (30-65)	48.45 (18-58)	42.33 (12-54)	49.16 (40-57)

Table A.13

APPROXIMATE MEANING OF VARIOUS POINTS ON STATE ACTIVITY INDEX SCALES

Index No.	Name of Index	Two-thirds s.d. below mean		Mean		Two-thirds s.d. above mean	
		Score	Meaning*	Score	Meaning*	Score	Meaning*
1-1	Internal affirmative action	46	Might possibly be done; no formal plans	50	Formal planning not begun; informally implemented	54	Formal planning begun
1-2	Incentives to school	49	No plans at present	52	May be done eventually; no formal planning yet	56	Informally implemented; formal planning begun
1-5	Teacher training/awareness	43	Formal planning in progress	50	Formal planning in progress; a little formal implementation	57	Nearly fully implemented
1-7	Employer/community liaison	50	Will probably be done; no formal planning	53	Informally implemented; formal planning begun	56	Formal planning well underway; much informal implementation
1-8	Title IX review	43	Will be done; formal planning not begun yet	50	Formal planning not begun; informally implemented	57	Informally implemented
1-9	Model building/research	48	Informally implemented	51	Formal planning in progress	54	Formal planning well underway; partial formal implementation
1-10	Monitoring/review/data collection	50	Formal planning not begun; informally implemented	54	Informally implemented	58	Formal planning begun
1-11	Financial commitment to "104(b)(1)"	43	Informally implemented	50	Formal planning is in progress	57	Formal planning well underway; partial formal implementation
1-12	Advisory Council	43	Formal planning in progress	50	Formal planning is well underway	57	Formal planning well underway; much informal implementation
1-13	Sex Equity Coordinator	43	Formal planning nearly done; partial formal implementation	50	Nearly fully implemented	57	Fully implemented

*Rough description of status of activities that make up the index.

THE ROLE AND RESPONSIBILITY OF THE SEX EQUITY COORDINATOR

As stated earlier, one of the best ways to examine activity at the state level is to look at the role and responsibility of each state's Sex Equity Coordinator. The legislation requires that states assign full-time personnel to assist in fulfilling the purposes of the Act. The following pages will examine how the states are making use of this position; the type of person they assigned to the job and what the functions and responsibilities are.

Time on the Job

The Act was passed in October 1976. The regulations pertaining to the Act were published a year later in October 1977, and we collected all of our data in April, May, and early June 1978. At that time, half of the Sex Equity Coordinators we interviewed had held the job for six months or less (22% for less than four months); and half had held the position for more than six months. At the time of our interviews, three individuals were serving in a temporary capacity. A breakdown in the amount of time Sex Equity Coordinators report they have been on the job is presented in Table A.14. Since so many coordinators are so new to their jobs, the analysis of their activities is in many ways preliminary.

Table A.14

RESPONSE OF SEX EQUITY COORDINATORS TO THE QUESTION:
HOW LONG HAVE YOU HELD THE POSITION OF SEX EQUITY COORDINATOR?

Amount of Time	N	%
0 - 3 months	11	22
4 - 6 months	14	28
7 months - 1 year	19	38
1 - 2 years	5	10
more than 2 years	1	2
TOTAL	50	100

Selection Criteria and Previous Experience

The State Directors of Vocational Education were asked what criteria were used to select the Sex Equity Coordinator. (See Table A.15) Masters degree level candidates were generally preferred. Also, two to three years successful vocational education teaching experience and demonstrated administrative capabilities were minimum requirements in a large number of the states (38% and 32%, respectively). Vocational education experience was cited by more State Directors than was experience with equity related activities or a commitment to sex equity. In fact, only seven state directors cited a strong commitment to sex equity as a selection criteria.

The criteria cited by the greatest number of state directors are:

- Vocational education teaching experience (38%)
- Administration and supervision experience (32%)
- Degree in vocational education (30%)
- Knowledge of vocational education legislation (22%)
- Ability to communicate/work with a variety of individuals and groups (16%)

Table A.16 shows the experience Coordinators have had in vocational education. Classroom teaching was, by far, the greatest source of vocational education experience with 37 of the 50 Coordinators reporting this. Twenty-four of these 37 individuals had taught either Home Economics or Business/Office Education. Nine of the Sex Equity Coordinators report no experience in any area of vocational education.

Table A.17 shows that experience in sex equity among the Coordinators tended to focus on Title IX or affirmative action work and on work with specific equity projects. Twenty-four percent of the Coordinators report they have no experience in the area of sex equity.

As shown in Table A.18, about half of the Sex Equity Coordinators had been working within a vocational education system immediately before taking on their present positions. Consistent with their statements on the types of vocational education experience they had had, ten of this group came

Table A.15

RESPONSE OF STATE DIRECTORS TO THE QUESTION:

WHAT CRITERIA DID YOU USE (DO YOU PLAN TO USE) TO SELECT THE SEX EQUITY COORDINATOR?

Criterion Cited	N	%*
Educational Qualifications		
B.A./M.A. Education, general	13	26
B.A./M.A. Vocational Education	15	30
Ph.D. Education	1	2
Eligible for teaching or counseling credential	4	8
Knowledge of Legislation		
Vocational Education	11	22
Title IX/EEO/Affirmative Action	5	10
Related Experience		
Vocational Education teaching	19	38
Teaching, general	3	6
Guidance, Counseling	4	8
Title IX implementation	8	16
Administration, supervision	16	32
Data collection and analysis	4	8
Workshop/Research Leadership	6	12
Other		
Ability to communicate/work with a variety of individuals and groups	10	20
Strong commitment to equal rights/ sex equity	7	14
Female	2	4

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*Totals add to more than 100% because several criteria could be cited.

Table A.16

RESPONSE OF SEX EQUITY COORDINATORS TO THE QUESTION: WHAT EXPERIENCE IN THE AREA OF VOCATIONAL EDUCATION DO YOU BRING TO THE JOB?

Type of Experience Reported	N	%[*]
Classroom Teaching	37	74
Home Economics	(17)	
Business/Office	(7)	
Vocational Education, unspecified	(9)	
Teacher Education	(1)	
Adult Education	(1)	
Human Relations	(1)	
General	(1)	
Administration	14	28
Business/Office Education	(9)	
Home Economics	(3)	
Vocational Education, General	(2)	
Community/School/Project Work	11	22
Education/Training Background	12	24
Graduate Degree in Vocational Education	(10)	
Research in Vocational Education	(2)	
Counseling/Guidance	8	16
No Vocational Education Experience	9	18

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[*] Totals add to more than 100% because more than one type of experience could be mentioned.

Table A.17

RESPONSE OF SEX EQUITY COORDINATORS TO THE QUESTION: WHAT EXPERIENCE IN THE AREA OF SEX EQUITY DO YOU BRING TO THE JOB?

Type of Experience Reported	N	%*
Personal Interest in Sex Equity	15	30
Title IX/Affirmative Action Work	19	38
Equity Project Work (leading conferences, workshops, consulting)	16	32
Counseling	7	14
Women's Activist	4	8
Teaching Nontraditional Students	2	4
No Sex Equity Experience	12	24

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*Totals add to more than 100% because more than one type of experience could be mentioned.

Table A.18

WHERE SEX EQUITY COORDINATORS WERE EMPLOYED PRIOR TO TAKING THE POSITION

Type of Work	N	%
Within Vocational Education (including teaching and administration at the state and local levels)	26	52
Title IX, Affirmative Action, or Equity Project Work	7	14
Within General or Career Education (including counseling, teaching, and administration)	6	12
Completing Graduate Studies	5	10
Other (secretary, consultant)	6	12
TOTAL	50	100

directly from the areas of Home Economics and Business/Office Education. The next largest group (N=7) came to their present positions from Title IX-related or affirmative action work.

In sum, the greatest emphasis in the selection criteria was on vocational education and administrative experience. In terms of the experience the selected Coordinators brought to the job, 12 had had no prior sex equity experience. Slightly fewer (nine) had had no experience in vocational education. All others had had varying amounts of both types of experience.

Responsibilities and Position Within State Structure

Perspectives on the responsibilities and power of Sex Equity Coordinators across the states may be gained from two open-ended questions posed to State Directors of Vocational Education. Each state director was asked to identify the major functions and responsibilities of the Coordinator and the job title of the person or persons to whom the Coordinator reports.

Table A.19 shows that 18 of the Sex Equity Coordinators report directly to the State Director of Vocational Education with an additional six reporting to the Assistant Director. Affirmative Action or EEO Coordinators carry out this supervisorial function in five of the states. Only one state requires the Sex Equity Coordinator to report to someone outside the state department of education (to the president of a community college).

The functions and major responsibilities assigned to the Sex Equity Coordinators, as described by the State Directors, vary greatly from conducting evaluations of all state vocational education programs to promoting an awareness and understanding of sex equity among members of the state staff. The majority of the functions described fall within the scope of the nine requirements set out in the law. (See Table A.20) Beyond these requirements, conducting staff training and "consciousness-raising" workshops at both state and local levels is a major responsibility of the Sex Equity Coordinator.

Table A.19

PERSON TO WHOM THE SEX EQUITY COORDINATOR REPORTS

Job Title	N	%
State Director	18	36
Assistant State Director	6	12
Director of Planning/Program Development	6	12
Coordinator of Student Services/ Field Services	7	14
Director of Research Coordinating Unit	3	6
State Superintendent	2	4
Assistant State Superintendent	2	4
Equal Opportunity/Affirmative Action Director	5	10
President of a Community College	1	2
TOTAL	50	100

Table A.20

MAJOR FUNCTIONS AND RESPONSIBILITIES OF SEX EQUITY COORDINATOR AS REPORTED BY STATE DIRECTORS

Function/Responsibility[a]	N Mentioning this as a Responsibility	%[b]
A. Taking such action as may be necessary to create awareness of programs and activities in vocational education that are designed to reduce sex stereotyping in all vocational education programs;	26	52
B. Gathering, analyzing, and disseminating data on the status of men and women, students and employees in the vocational education programs of that state;	18	36
C. Developing and supporting actions to correct any problems brought to the attention of such personnel through activities carried out under clause (B). . .;	14	28
D. Reviewing the distribution of grants by the State Board to assure that the interests and needs of women are addressed in the projects assisted under this Act;[c]	14	28
E. Reviewing all vocational education programs in the State for sex bias;	20	40
F. Monitoring the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures within the State relating to vocational education;[d]	21	42
G. Reviewing and submitting recommendations with respect to the overcoming of sex stereotyping and sex bias in vocational education programs for the annual program plan and report;	17	34
H. Assisting local educational agencies and other interested parties in the State in improving vocational education opportunities for women;	21	42
I. Making readily available to the State Board, the State and National Adisory Councils on Vocational Education, the State Commission on the Status of Women, the Commissioner and the general public, information developed pursuant to this subsection;	16	32
J. Conducting inservice training, workshops, and seminars for state and local personnel and the community;	24	48
K. Coordinating efforts by state and local staff	3	6
L. Assisting in establishing Displaced Homemaker Centers	1	2

[a] Items A-I are from Public Law 94-482, Sec. 104(b)(1).

[b] Totals add to more than 100% because several functions could be mentioned.

[c] Including the monitoring of specific research efforts.

[d] Including the development of guidelines and procedures to insure compliance.

In addition to asking the State Director what the major functions and responsibilities of the Sex Equity Coordinator are, we asked the Coordinators themselves how they were apportioning their time among the nine activities specified in the legislation and any other activities they perform. Table A.21 lists the mean percentage of time spent on each activity. The coordinators report that they are spending the greatest proportion of their time on activities to create awareness of programs or activities designed to reduce inequities.

Sex Equity Coordinators were also asked to indicate which of these activities were more useful, second most useful, and third most useful in terms of making progress toward equity in their states. By assigning three points each time an activity is rated "most useful," two points for each "second most useful" rating, and one for each rating of "third most useful," a total point scored for each activity can be obtained and they can then be rank ordered by perceived usefulness. Table A.22 shows how these activities were rank ordered by usefulness. It also shows the rank order of the activities by the mean amount of time spent on each task. There is great similarity in the two listings. No activity changes more than one rank position between the two lists, with the exception of Activity G, "Reviewing and submitting recommendations with respect to overcoming sex stereotyping and sex bias in vocational eduation programs for the annual program plan and report." This activity was ranked seventh in usefulness, but fifth in time devoted to it.

Another perspective on the role and responsibility of the Sex Fairness Coordinator can be obtained by examining the responses of all other state vocational education personnel (with the exception of the State Director) to the question, "What are the most important functions of the Sex Equity Coordinator in working with you to further sex equity?" Six different categories were developed from the data. These categories and the percentage of state level respondents mentioning each category are presented in Table A.23. Two-thirds of the state level personnel mentioned that the Sex Equity Coordinator could or has provided them with information and assistance. Approximately one-third list reviewing or developing policies as an important function. About 15% on the other hand took a more negative view of

Table A.21

PERCENTAGE OF TIME SPENT ON EQUITY ACTIVITIES BY SEX EQUITY COORDINATORS

Function/Responsibility	Mean % of Time
A. Taking such action as may be necessary to create awareness of programs and activities in vocational education that are designed to reduce sex stereotyping in all vocational education programs;	26.7
B. Gathering, analyzing, and disseminating data on the status of men and women, students and employees in the vocational education programs of that state;	8.4
C. Developing and supporting actions to correct any problems brought to the attention of such personnel through activities carried out under clause (B). . .;	10.1
D. Reviewing the distribution of grants by the State Board to assure that the interests and needs of women are addressed in the projects assisted under this Act;	6.6
E. Reviewing all vocational education programs in the State for sex bias;	9.3
F. Monitoring the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures within the State relating to vocational education;	2.9
G. Reviewing and submitting recommendations with respect to the overcoming of sex stereotyping and sex bias in vocational education programs for the annual program plan and report;	8.7
H. Assisting local educational agencies and other interested parties in the State in improving vocational education opportunities for women;	14.8
I. Making readily available to the State Board, the State and National Adisory Councils on Vocational Education, the State Commission on the Status of Women, the Commissioner and the general public, information developed pursuant to this subsection;	5.3
Other	7.4
TOTAL	100.2 (due to rounding)

Table A.22

RANK ORDERING OF ACTIVITIES BY SEX EQUITY COORDINATORS IN TERMS OF TIME SPENT AND PERCEIVED USEFULNESS

Rank (high to low)	Mean Time Spent Performing the Activity*	Perceived Usefulness of the Activity*
1	A	A
2	H	H
3	C	E
4	E	C
5	G	B
6	B	D
7	D	G
8	I	I
9	F	F

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*See Table A.21 for description of each activity category.

Table A.23

FUNCTIONS OF SEX EQUITY COORDINATOR MENTIONED BY SEA RESPONDENTS OTHER THAN STATE DIRECTOR AND SEX EQUITY COORDINATOR

Function	% Mentioning*
Provide Information and Assistance	66.3
Review or Develop Policies, including Funding	37.8
Review or Develop Materials	11.6
Develop a Line of Communication which is non-threatening or non-abrasive	6.6
Getting in the Way	.5
Other	3.5
No Function Mentioned	14.5

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*Percentages add to more than 100% because of multiple answers.

the coordinator's role; 14.5% could think of no important functions of the coordinator, and .5% mention the coordinator was "getting in their way."

Inhibiting Factors for Sex Equity Coordinators

The Sex Equity Coordinators were asked to indicate what factors, if any, have inhibited them in discharging their responsibilities. Table A.24 shows that those factors which were the greatest inhibitors were too much to do and traditional and conservative attitudes of others. Ten coordinators report no inhibiting factors, the percentages are approximately equal for coordinators who report directly to the state director and for those who do not. However greater percentages of coordinators who report to state directors appear to be concerned with too much to do (22.2% vs. 12.5%), being in only a temporary capacity (11.1% vs. 0.0%), and delays in getting on the job (16.7% vs. 3.1%). Coordinators who report to someone other that the state director are more inhibited by a lack of power or support (12.5% vs. 0.0%).

BUDGETING FOR SEX EQUITY AT THE STATE LEVEL

Table A.25 shows by USOE region how many Equity Coordinators have a budget to administer. Forty-seven of the states in the sample report that they have spent funds on the salary of the coordinator. Three report that they have not, but plan to. Of those 47, 12 have also spent funds on the salaries of professional assistants, and 8 plan to spend funds on professional assistants but had not to date. Eight of the states did not know if they would spend money for professional assistants, and 19 had not, nor did they plan to.

Of the 47 who had spent funds on a coordinator's salary, 36 had also spent funds for secretarial support; 7 planned to; 1 was undecided; and 3 had not and did not plan to. Nine states have spent part of the $50,000 for salaries all three types of staff: Coordinators, Professional Assistants, and Secretarial Support personnel.

Table A.24

FACTORS INHIBITING SEX EQUITY COORDINATORS IN DISCHARGING THEIR RESPONSIBILITIES

Inhibiting Factor	Sex Equity Coordinators Reporting to State Director N=18		Sex Equity Coordinators Reporting to Someone Other than State Director N=32		TOTAL N=50	
	N	%*	N	%*	N	%*
Traditional conservative attitudes of others	3	16.7	5	9.6	8	16.0
Too much to do	4	22.2	4	12.5	8	16.0
Lack of cooperation from staff	1	5.6	4	12.5	5	10.0
General Bureaucracy	1	5.6	4	12.5	5	10.0
Insufficient staff, resources	2	11.1	3	9.4	5	10.0
Ill-defined responsibilities	1	5.6	3	9.4	4	8.0
Lack of power or support	0	0.0	4	12.5	4	8.0
Being in temporary capacity	2	11.1	0	0.0	2	4.0
Delays in getting on job	3	16.7	1	3.1	4	8.0
Lack of familiarity with vocational education	1	5.6	2	6.3	3	6.0
Too early to tell	0	0.0	2	6.3	2	4.0
Miscellaneous (poor weather)	1	5.6	0	0.0	1	2.0
No inhibiting factors	4	22.2	6	18.8	10	20.0

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* Percents are greater than 100% due to multiple comments.

100

Table A.25

DO SEX EQUITY COORDINATORS HAVE A BUDGET TO ADMINISTER?

	No		Yes		Total	
OE Regions	N	%	N	%	N	%
I and II	3	37.5	5	62.5	8	100.0
III	2	33.3	4	66.7	6	100.0
IV	0	0	8	100.0	8	100.0
V	2	33.3	4	66.7	6	100.0
VI	3	60.0	2	40.0	5	100.0
VII	0	0	4	100.0	4	100.0
VIII	1	20.0	4	80.0	5	100.0
IX	1	25.0	3	75.0	4	100.0
X	1	25.0	3	75.0	4	100.0
TOTAL	13	26.0	37	74.0	50	100.0

Table A.26 indicates the number of states, by region, which are spending part of the $50,000 set aside on items other than salaries. For those who indicated other items were being funded, the most frequently mentioned items were travel, office supplies and equipment, and workshop or conference costs including materials.

Table A.27 shows how many states, according to the Sex Equity Coordinator have added funds to the $50,000 set aside. Of the 20 states in which additional state funds have been added, 9 states did not specify the amount which was added. For the remaining 11, 6 had contributed $5,000 or less, and 3 reported contributions of $30,000 or more. (The remaining 2 had contributed between $5,001 - $10,000, and $10,001 and $20,000 respectively.) In general, Sex Equity Coordinators reported these additional state funds went for special project funding including workshops, consultants, materials, and services for displaced homemakers.

SUMMARY

The following points summarize the major findings presented in the four sections of this chapter.

Staffing Patterns at the State Level

- State level leadership is overwhelmingly white and male. The majority of women holding state level leadership positions are either Sex Equity Coordinators, Directors of Home Economics, or Directors of Health Occupations.

- There appears to be no substantial difference in years of experience between women and men filling like positions at the state level.

- About 69% of State Advisory Council members are men, but the great majority of councils have women members with expertise in areas related to sex inequities in vocational training or in the job market.

Table A.26

ACCORDING TO SEX EQUITY COORDINATORS, IS THE $50,000 SET ASIDE BEING SPENT ON ITEMS OTHER THAN SALARY?

	No		Yes		Don't Know		TOTAL	
USOE Region	N	%	N	%	N	%	N	%
I and II	3	37.5	5	62.5	0		8	100.0
III	0		6	100.0	0		6	100.0
IV	2	25.0	6	75.0	0		8	100.0
V	1	16.7	5	83.3	0		6	100.0
VI	1	20.0	3	60.0	1	20.0	5	100.0
VII	0		4	100.0	0		4	100.0
VIII	0		5	100.0	0		5	100.0
IX	1	25.0	3	75.0	0		4	100.0
X	0		4	100.0	0		4	100.0
TOTAL	8	16.0	41	82.0	1	2.0	50	100.0

Table A.27

ACCORDING TO SEX EQUITY COORDINATORS, HAVE STATE FUNDS BEEN ADDED TO THE $50,000 SET ASIDE?

	No		Yes		Don't Know		TOTAL	
USOE Region	N	%	N	%	N	%	N	%
I and II	2	25.0	6	75.0	0		8	100.0
III	3	50.0	3	50.0	0		6	100.0
IV	7	87.5	1	12.5	0		8	100.0
V	4	66.7	2	33.3	0		6	100.0
VI	1	20.0	3	60.0	1	20.0	5	100.0
VII	2	50.0	1	25.0	1	25.0	4	100.0
VIII	5	100.0	0		0		5	100.0
IX	1	25.0	3	75.0	0		4	100.0
X	3	75.0	1	25.0	0		4	100.0
TOTAL	28	56.0	20	40.0	2	4.0	50	100.0

State Level Activity

- There are four activities which two-thirds of the state directors and equity coordinators report their states are already implementing. If the states which are engaged in formal planning for implementation are also considered, approximately 80% of the states are engaged in these activities. Three of the four are related to review and analysis efforts. The four are:
    - Reviewing grants made by the state to assure the needs of women are addressed
    - Gathering, analyzing, and disseminating data on the status of men and women students and employees
    - Systematically reviewing all vocational education programs in the state for sex equity
    - Assisting the local agencies to improve opportunities for women

- Personnel in slightly more than a third of the states report they are funding or sponsoring student-oriented activities to create greater awareness of inequities, nontraditional options, or provide special job development, placement, and follow-up services for nontraditional students.

- The activities which appear to be receiving the least attention, and to which the greatest percentage of state directors report they have no plans or do not know what their plans for implementation are, follow:
    - Monitoring the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures at the local level
    - Community liaison activities to improve opportunities for women
    - Assisting employers to improve opportunities for women

- In general, state level staff report little involvement in local level staffing matters. As stated above, directors report low levels of activity with respect to monitoring laws prohibiting discrimination in staffing at the local level. Only one equity coordinator reports that incentives are being provided to schools to acquire or promote nontraditional staff.

- While 70% of the State Advisory Councils for Vocational Education have evaluated, or plan to evaluate, equity activities in their states, only 40% have assigned specific responsibility for the evaluation.

Role and Responsibility of the Sex Equity Coordinator

- At the time of data collection, 47 states had appointed permanent Sex Equity Coordinators. Two of these coordinators have duties in addition to carrying out sex equity efforts. Three states had appointed acting coordinators while searching for a qualified candidate.

- The major criteria used to select the coordinators were experience in some aspect of vocational education, administrative experience, and the ability to work well with others. All but 12 of the coordinators have experience in the area of sex equity. Nine coordinators had no prior vocational education experience.

- Forty-eight percent of the coordinators report to the state director or assistant state director.

- Of the activities specified in the legislation, coordinators report on the average they are spending a quarter of their time creating awareness of programs and activities designed to reduce inequities. The coordinators also feel this is the most useful activity for achieving sex equity in their states.

- Eighty-five percent of state personnel (excluding the state director) described functions of the equity coordinators. Fifteen percent took a more negative view by being unable to think of any function of the coordinator or stating that the coordinator was "getting in their way."

- Twenty percent of the coordinators report they have experienced no inhibiting factors. The greatest inhibiting factors cited by coordinators who report to the state director are: too much to do (22.2%), traditional and conservative attitudes of others (16.7%), and delays in getting on the job (16.7%). The greatest inhibiting factors cited by coordinators who report to someone other than the state director are: too much to do, lack of cooperation from staff, general bureaucracy, and lack of power and support (all at 12.5%).

Budgeting for Sex Equity at the State Level

- Thirty-seven states have given the Sex Equity Coordinator a budget to administer.

- Forty-seven states are spending part of the $50,000 on salaries of coordinators. Three states plan to but had not at the time of data collection. Of these 47, 36 are also spending part of the $50,000 on salaries of secretarial support staff. Twelve states are also spending the money on the salaries of professional assistants for the coordinator. Nine states are supporting all three types of staff.

- Forty-one states are spending part of the $50,000 on items in addition to salaries. The items most frequently funded are travel, supplies and equipment, and conference expenses.
- Twenty states have added state funds to the $50,000 set aside in order to carry out sex equity efforts.

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II.B LOCAL EDUCATION AGENCY EFFORTS TO ADDRESS INEQUITIES

This chapter discusses efforts undertaken by Local Education Agencies (LEAs) to address sex inequities in vocational education. The local agency serves as the mediator between the state agency and the vocational schools and consequently its policies and practices can play a major role in the effort to foster sex equity. The LEAs which were included in the sample were those associated with the 100 sample schools. In two cases, two sample schools fell within the jurisdiction of a single LEA. Therefore there are a total of 98 LEAs in the sample. At each LEA interviews were requested with the Local Director of Vocational Education and the Local Director of Guidance and Counseling. In two instances it was not possible to secure an interview with the Local Director, and in only 49 instances were Directors of Vocational Guidance and Counseling present at the local level. Thus the data presented in this chapter are based on interviews with 96 Local Directors and 49 Local Directors of Guidance and Counseling. All data were collected during the Spring of 1978.

This chapter is presented in five major sections:

- Staffing Patterns at the Local Education Agency Level
- Data Analysis Considerations
- Data Collection, Dissemination, Monitoring, and Review Activities
- Student-Oriented Activities, Including Activities for Re-entry Women and Minority Students.
- Summary

STAFFING PATTERNS AT THE LOCAL EDUCATION AGENCY LEVEL

Over 90% of the 96 Local Directors of Vocational Education contacted during the course of the Vocational Education Equity Study are men, as are about 70% of the 49 Local Directors of Counseling. At the same time, men and women serving as Local Directors of Vocational Education and Guidance and Counseling do not differ significantly in years of experience in various roles in education.

Distribution by Sex of Local Agency Staff

Tables B.1 to B.3b show the number of men and women serving, respectively, as Local Directors of Vocational Education and as Local Directors of Counseling. The left-hand portion of each table shows the figures for those sampled, while the right-hand portion shows the corresponding weighted data.* The weighted data provide an estimate of the number of men and women filling each role nationwide. The following facts emerge from a review of these tables:

- White men predominate as Local Directors of Vocational Education, making up 84.4% of the total in the sample, and 87.5% of the weighted total. Disregarding race, 90.6% of the local directors sampled are men; the corresponding weighted figure is 92.7%.

- Each of the female Local Directors of Vocational Education listed was director in a district where a comprehensive high school was sampled. In other words, whenever the sample tapped into a strictly vocational institution, the highest ranking supervisor was inevitably a man. Moreover, the local director at each community or junior college visited was a man.

- Minority group members were seldom found as Local Directors of Vocational Education: Blacks held slightly over 6% of the local directorships among those schools sampled (5% for the weighted data) as against their approximately 11.1% of the population. One local director was Asian, representing slightly over 1% of the sample, or about 1.4% of the weighted data; this compares with Asian or Pacific Islander representation in the population of about .7%. No Hispanic, American Indian, or Native Alaskan directors were found.

- Men also predominate as Local Directors of Counseling, making up 70.6% of the sample, which percentage increases to 72.4 for the weighted data. Blacks represent 11.8% of the Local Directors of Counseling sampled; the corresponding weighted figure is 7.6%. No other minority counseling directors were identified in the sample.

Thus, top local agency leadership is predominantly male. The only type of school for which female local directors were found were comprehensive high schools. This finding is interesting and suggestive, but must be interpreted cautiously, as it is quite possible that vocational high schools, vocational

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*See Appendix C.1 for a discussion of weighting.

Table B.1

SEX AND ETHNIC/RACIAL DISTRIBUTION OF LEA DIRECTORS OF VOCATIONAL EDUCATION

		Sample Unweighted Total										Weighted Total									
		White Men	Black Men	Asian Men	White Women	Black Women	Total by Sex		Total by Race			White Men	Black Men	Asian Men	White Women	Black Women	Total by Sex		Total by Race		
							Men	Women	White	Black	Asian						Men	Women	White	Black	Asian
All Regions Combined	N	81	5	1	8	1	87	9	89	6	1	5895	258	93	415	79	6247	494	6310	337	93
	%	84.3	5.2	1.0	8.3	1.0	90.6	9.4	92.7	6.3	1.0	87.4	3.8	1.4	6.2	1.2	92.7	7.3	93.6	5.0	1.4
North East	N	14	3	0	0	1	17	1	14	4	0	866	113	0	0	79	979	79	866	192	0
	%	14.6	3.1	0.0	0.0	1.0	17.7	1.0	14.6	4.2	0.0	12.8	1.7	0.0	0.0	1.2	14.5	1.2	12.8	2.8	0.0
North Central	N	26	0	0	3	0	26	3	29	0	0	1845	0	0	137	0	1845	137	1982	0	0
	%	27.1	0.0	0.0	3.1	0.0	27.1	3.1	30.2	0.0	0.0	27.4	0.0	0.0	2.0	0.0	27.4	2.0	29.4	0.0	0.0
South	N	27	1	0	3	0	28	3	30	1	0	2142	76	0	92	0	2217	92	2234	76	0
	%	28.1	1.0	0.0	3.1	0.0	29.2	3.1	31.3	1.0	0.0	31.8	1.1	0.0	1.4	0.0	32.9	1.4	33.1	1.1	0.0
West	N	14	1	1	2	0	16	2	16	1	1	1043	70	93	183	0	1206	186	1229	70	93
	%	14.6	1.0	1.0	2.1	0	16.7	2.1	16.7	1.0	1.0	15.5	1.0	1.4	2.8	0.0	17.9	2.8	18.2	1.0	1.4

Table B.2

SEX OF LEA DIRECTORS OF VOCATIONAL EDUCATION

		Unweighted					Weighted				
		North East	North Central	Wouth	West	Total	North East	North Central	South	West	Total
Total											
Men	N	17	26	28	16	87	979	1845	2217	1206	6247
	%	94.4	89.7	90.3	88.9	90.6	92.5	93.1	96.0	86.7	92.7
Women	N	1	3	3	2	9	79	137	92	186	494
	%	5.6	10.3	9.7	11.1	9.4	7.5	6.9	4.0	13.3	7.3
Vocational High School											
Men	N	2	2	1	1	6	95	25	10	93	223
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women	N	0	0	0	0	0	0	0	0	0	0
	%	0	0	0	0	0	0	0	0	0	0
Comprehensive High School											
Men	N	9	17	14	11	51	620	1402	1229	962	4212
	%	90.0	85.0	82.4	84.6	85.0	88.7	91.1	93.0	83.8	89.5
Women	N	1	3	3	2	9	79	137	92	186	494
	%	10.0	15.0	17.6	15.4	15.0	11.3	8.9	7.0	16.2	10.5
Technical Institute											
Men	N	0	1	2	0	3	0	69	151	0	220
	%	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0
Women	N	0	0	0	0	0	0	0	0	0	0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Junior/Community College											
Men	N	2	2	4	3	11	76	131	212	151	571
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women	N	0	0	0	0	0	0	0	0	0	0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vocational Center											
Men	N	4	4	7	1	16	188	217	616	1	1022
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women	N	0	0	0	0	0	0	0	0	0	0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table B.3a

SEX AND ETHNIC/RACIAL DISTRIBUTION OF LEA DIRECTORS OF COUNSELING

		Sample Unweighted Totals								Weighted Totals							
						Total by Sex		Total by Race						Total by Sex		Total by Race	
		White Men	Black Men	White Women	Black Women	Men	Women	White	Black	White Men	Black Men	White Women	Black Women	Men	Women	White	Black
All Regions Combined	N	35	1	10	5	36	15	45	6	2196	55	680	181	2251	860	2876	235
	%	68.6	2.0	19.6	9.8	70.6	29.4	88.2	11.8	70.6	1.8	21.9	5.8	72.4	27.6	92.4	7.6
North East	N	7	0	2	1	7	3	9	1	296	0	17	79	296	96	313	79
	%	13.7	0.0	3.9	2.0	13.7	5.9	17.6	2.0	9.5	0.0	0.6	2.5	9.5	3.1	10.1	2.5
North Central	N	8	0	2	3	8	5	10	3	560	0	179	49	560	227	738	49
	%	15.7	0.0	3.9	5.9	15.7	9.8	19.6	5.9	18.0	0.0	5.7	1.6	18.0	7.3	23.7	1.6
South	N	13	1	2	1	14	3	15	2	821	55	218	53	876	271	1039	108
	%	25.5	2.0	3.9	2.0	275	5.9	29.4	3.9	26.4	1.8	7.0	1.7	28.2	8.7	33.4	3.5
West	N	7	0	4	0	7	4	11	0	519	0	266	0	519	266	785	0
	%	13.7	0.0	7.8	0.0	13.7	7.8	21.6	0.0	16.7	0.0	8.6	0.0	16.7	8.6	100.0	0.0

Table B.3b

SEX OF LEA DIRECTORS OF COUNSELING

		Unweighted					Weighted				
		North East	North Central	South	West	Total	North East	North Central	South	West	Total
Total											
Men	N	7	8	14	7		296	560	876	519	2251
	%	70.0	61.5	82.4	63.6		75.5	71.1	76.4	66.1	72.3
Women	N	3	5	3	4		96	227	271	266	860
	%	30.0	38.5	17.6	36.4		24.5	28.9	23.6	33.9	27.7
Vocational High School											
Men	N	1	0	1	0	2	87	0	10	0	97
	%	50.0	0.0	100.0	0.0	40.0	91.0	0.0	100.0	0.0	74.1
Women	N	1	2	0	0	3	9	25	0	0	34
	%	50.0	100.0	0.0	0.0	60.0	9.0	100.0	0.0	0.0	25.9
Comprehensive High School											
Men	N	3	6	7	5	21	133	425	461	439	1457
	%	60.0	75.0	70.0	71.4	70.0	60.2	75.7	63.0	70.3	68.2
Women	N	2	2	3	2	9	88	136	271	186	680
	%	40.0	25.0	30.0	28.6	30.0	39.8	24.3	37.0	29.7	31.8
Technical Institute											
Men	N	0	1	1	0	2	0	69	76	0	145
	%	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0
Women	N	0	0	0	0	0	0	0	0	0	0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Junior/Community College											
Men	N	2	1	3	2	8	76	76	161	81	383
	%	100.0	50.0	100.0	66.7	80.0	100.0	50.0	100.0	50.3	72.5
Women	N	0	1	0	1	2	0	66	0	80	146
	%	0.0	50.0	0.0	33.3	20.0	0.0	50.0	0.0	49.7	27.5
Vocational Center											
Men	N	1	0	2	0	3	1	0	169	0	170
	%	14.3	0.0	100.0	0.0	75.0	100.0	0.0	100.0	0.0	99.4
Women	N	0	0	0	1	1	0	0	0	1	1
	%	0.0	0.0	0.0	100.0	25.0	0.0	0.0	0.0	0.4	0.1

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centers, or technical institutes also exist in these districts, but were not sampled.

Experience in Education of Local Education Agency Staff

Tables B.4 and B.5 show the number of years experience in various roles in education, and experience in working with nontraditional students of Local Education Agency staff. The following facts emerge from the tables:

- Men serving as Local Directors of Vocational Education do not differ from their female counterparts in years of experience in any of a variety of roles within education.
- Men serving as Local Directors of Counseling likewise did not differ from their female counterparts in years of experience in various roles in education, when data for the United States were considered as a whole.
- The proportion of Local Directors of Counseling indicating various kinds of experience working with nontraditional students did not differ as a function of sex.

The data also showed no statistically significant differences between the proportion of male and female Local Directors of Counseling holding each of several kinds of credentials. Thus, while men predominate in Local Education Agency leadership positions, as already discussed, there is no evidence in these data to suggest that men and women who have reached leadership positions differ substantially in background, qualifications, or experience.

DATA ANALYSIS CONSIDERATIONS

As in the preceding chapter on state level efforts, data on LEA efforts and activities will be presented in terms of the LEAs' implementation of activities related to (1) data collection, dissemination, monitoring, and review; and (2) student programs including programs for re-entry women and minority students. The scale on which responses were recorded follows.

No Plans	Will do it; formal planning not begun	It is informally implemented	Formal planning has begun	Implementation has begun	It is fully implemented or completed
(1)	(3)	(4)	(5)	(8)	(9)

Table B.4

EXPERIENCE IN EDUCATION OF LEA DIRECTORS OF VOCATIONAL EDUCATION AND COUNSELING

	LEA Directors of Vocational Education								LEA Directors of Counseling							
Type of Experience (in years)	Men			Women					Men			Women				
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	*t*	*p*	N	$\bar{X}$	SD	N	$\bar{X}$	SD	*t*	*p*
Total Years As an Educator	87	19.91	8.08	9	20.00	5.68	-0.03	0.97	36	20.72	7.21	15	20.87	13.56	-0.05	0.96
Vocational Teacher	87	8.45	11.18	9	10.11	7.91	-0.43	0.67	36	1.44	3.32	15	4.33	8.86	-1.71	0.09
Counselor	87	1.15	2.56	9	1.44	4.33	-0.31	0.76	36	7.03	6.92	15	5.60	5.32	0.71	0.48
School or District Administrator	87	8.80	5.28	9	7.22	5.67	0.85	0.40	36	9.69	6.38	15	7.33	6.86	1.18	0.25
State Level Administrator	87	0.94	3.45	9	0.0	0.0	0.82	0.42	36	0.0	0.0	15	0.53	2.06	-1.57	0.12

Table B.5

EXPERIENCE OF LEA DIRECTORS OF COUNSELING IN WORKING WITH NONTRADITIONAL STUDENTS

	Proportion Engaged in Activity					
	Men		Women			
	N	%	N	%	χ^2	p
Taught Classes with Nontraditional Students	12	33.3	7	46.7	.336	>.5
Informally Counseled Nontraditional Students	31	86.1	13	86.7	.079	>.7
Formally Counseled Nontraditional Students	29	80.6	12	80.0	.079	>.7
Provided Special Supplemental Services for Nontraditional Students	19	52.8	9	60.0	.028	>.7
Work in Programs to Encourage Nontraditional Students	17	47.2	11	73.3	2.072	>.1
Other Experience with Nontraditional Students	4	11.1	3	20.0	.079	>.7

For purposes of analysis, the response options were given the number of points indicated in parentheses. The scale is weighted so that more points are given when an LEA has begun or completed implementation of an activity.

The data will be presented for the total population, and in some instances by regions and type of school. "Type of school" refers to the school in the study sample over which the LEA has jurisdiction. It is important to remember that LEA directors may have jurisdiction over more than one type of school. That is, a local director for a district may have jurisdiction over a number of comprehensive high schools with vocational programs as well as a vocational high school, or possibly a vocational center. It is not likely, however, that local directors at the postsecondary level (technical institute or junior/community college) share jurisdiction.

DATA COLLECTION, DISSEMINATION, MONITORING, AND REVIEW ACTIVITIES

Table B.6 displays responses of the Local Directors of Vocational Education to seven activities which are concerned with data collection, dissemination, and monitoring. The following can be observed from the tables.

- LEAs are placing the greatest effort on monitoring laws which prohibit sex discrimination in staff hiring, firing, and promotion, and on ensuring male and female representation on all local advisory councils. Close to two-thirds of the LEAs report that these activities are already being implemented.

  However, in spite of the relatively high level of activity perceived by LEAs in monitoring laws which prohibit sex discrimination in hiring and promotion of staff, as reported in the first section of this chapter men continue to dominate as Local Directors of Vocational Education (90%) and as Local Directors of Guidance and Counseling (70%).

- Approximately two-thirds of the LEAs are also reviewing funding practices to assure that guidelines regarding sex equity are carried out.

Table B.6

DATA COLLECTION, DISSEMINATION, AND MONITORING ACTIVITIES

RESPONSES OF LOCAL DIRECTORS

Item		(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally imple- mented	(5) Formal planning begun	(8) Imple- mentation begun	(9) Fully imple- mented or completed	N Total	$\bar{X}$*	Std. Dev.
Gather and disseminate information to create awareness of programs and activities in vocational education designed to reduce sex inequities	N	8	35	8	7	7	12	18	95[a]	4.08	3.33
	%	8.4	36.8	8.4	7.4	7.4	12.6	18.9			
Gather, analyze, and disseminate data on the status of men and women students and employees in local vocational education programs.	N	4	33	2	7	2	15	33	96	5.19	3.65
	%	4.2	34.4	2.1	7.3	2.1	15.6	34.4			
Monitor the implementation of laws prohibiting sex discrimination in all hiring, firing, and promotion procedures relating to vocational education	N	1	14	2	11	2	13	52	95[a]	6.81	3.09
	%	1.1	14.7	2.1	11.6	2.1	13.7	54.9			
Review funding practices to assure that guidelines regarding sex fairness were carried out	N	5	19	2	7	1	13	46	93[b]	6.25	3.47
	%	5.4	20.4	2.2	7.5	1.1	14.0	49.5			
Sponsor research or evaluation activities related to the elimination of sex inequities	N	7	50	3	6	3	11	14	94[c]	3.39	3.30
	%	7.4	53.2	3.2	6.4	3.2	11.7	14.9			
Ensure female representation on all local advisory councils	N	3	11	1	18	0	15	47	95[a]	6.65	3.05
	%	3.2	11.6	1.1	18.9	0.0	15.8	49.5			
Ensure male representation on all local advisory councils	N	2	10	1	18	1	15	48	95[a]	6.78	2.95
	%	2.1	10.5	1.1	18.9	1.1	15.8	50.5			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

a. 1 LEA Director did not answer

b. 3 LEA Directors did not answer

c. 2 LEA Directors did not answer

- Only a quarter of the LEAs are sponsoring research or evaluation activities related to the elimination of sex inequities. Over half have no plans to do this.

- Less than a third of the LEAs are gathering and disseminating information to create awareness of activities designed to reduce inequities. Forty-five percent either have no plans to do so, or don't know what their plans are.

Thus it appears that LEAs are considerably less involved in research, evaluation, data collection, and dissemination activities than in review and monitoring activities. The higher level of activity in monitoring staff hiring, and promotion procedures has not as yet resulted in a more equitable distribution of men and women in vocational education administration positions at the LEA level. There are no major regional differences in these findings.

Affirmative Action Activities for Staff

Additional information regarding the monitoring of staff hiring and promotion procedures is provided by questions directed to LEA counseling personnel. Table B.6 showed that according to local directors, LEAs are most active in terms of monitoring laws prohibiting sex discrimination in hiring, firing, and promotion activities. Counselors at the LEA were asked about efforts undertaken to actively reduce sex inequities in staffing patterns. Fifteen of the LEA level counselors said that they did not know about such activities or that no such activities were underway; 34 counselors indicated that their LEAs were implementing or planning to implement hiring or promotion activities for staff positions normally held by persons of the other sex. The nature of such activities, according to LEA counselors, is described in Table B.7. The following can be observed from the table.

- The overall levels of reported implementation are not great. Mean scores indicate that overall LEAs intend to implement these activities but that formal planning to do so has not yet begun.

- For each pair of activities referring to administrative, teaching, and nonprofessional positions, greater levels of activity are reported for moving women into positions normally held by men than vice versa.

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Table B.7

AFFIRMATIVE ACTION ACTIVITIES FOR STAFF
RESPONSES OF LEA DIRECTORS OF COUNSELING

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	Total	$\bar{X}$*	Std. Dev.
Hiring women for administrative positions usually filled by men	N	1	2	2	2	7	0	13	7	34[a]	4.39	1.52
	%	2.9	5.9	5.9	5.9	20.6	0.0	38.2	20.6	100.0		
Hiring men for administrative positions usually filled by women	N	10	5	9	1	4	1	3	1	34	2.33	1.76
	%	29.4	14.7	26.5	2.9	8.2	2.9	6.1	2.0	100.0		
Hiring women for teaching positions usually filled by men	N	1	7	5	3	6	0	8	4	34	3.30	1.93
	%	2.9	20.6	14.7	8.8	17.6	0.0	23.5	11.8	100.0		
Hiring men for teaching positions usually filled by women	N	3	5	10	1	6	0	6	3	34	2.90	1.97
	%	8.8	14.7	29.4	2.9	17.6	0.0	17.6	8.8	100.0		
Hiring women for nonprofessional positions usually filled by men	N	2	7	1	3	9	0	9	3	34	3.63	1.72
	%	5.9	20.6	2.9	8.8	26.5	0.0	26.5	8.8	100.0		
Hiring men for nonprofessional positions usually filled by women	N	3	6	8	3	6	0	7	1	34	2.84	1.81
	%	8.8	17.6	23.5	8.8	17.6	0.0	20.6	2.9	100.0		

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

[a] Fifteen Directors of Counseling indicated no affirmative action activities were taking place.

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- Considering the activities to move women into positions normally held by men, the highest level of activity is reported for administrative positions. For men, the greatest activity is reported for teaching positions, followed closely by nonprofessional positions.

Title IX Review Activities

Another area of review activity which LEAs are expected to be engaged in relates to Title IX review. Title IX is that section of the 1972 Education Amendments which prohibits discrimination on the basis of sex in any educational program. The LEA directors were asked if their agencies had conducted self-evaluations in response to Title IX that included vocational education. Eighteen of the directors said no or that they did not know if this had been done, while 78 said their agencies had done this or were planning to do it. At least two-thirds of LEAs from each region and from each type of school indicated that such reviews were completed or being planned. The 78 local directors who indicated their agencies had done this, or were planning to do so, were asked what these self-evaluations entailed. The results are presented in Table B.8.

On three of the four activities, over 70% of the responding directors indicate that implementation has been begun or completed. These three are review of all programs for sex inequities, and review of admission and recruitment policies and practices. Review of curriculum materials for sex inequities scores the lowest of the four. Fifty-five percent of the responding directors indicated implementation has been completed, however almost 40% have initiated very little, or no, activity.

The Title IX review of vocational education programs, recruitment, and admission policies and procedures reported by a majority of LEAs as already implemented seem to have had little effect on student enrollment up to this time. As Tables in the next chapter will show, enrollments for the most part, continue to reflect traditional enrollment patterns.

Table B.8

SELF-EVALUATIONS IN RESPONSE TO TITLE IX
RESPONSES OF LOCAL DIRECTORS

Item		(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	N Total	$\bar{X}$*	Std. Dev.
Review local vocational education programs for sex inequities	N	2	6	3	10	2	10	45	78	7.08	2.85
	%	2.6	7.7	3.8	12.8	2.6	12.8	70.5			
Sponsor or institute procedures to review locally used curriculum materials for sex fairness	N	5	13	3	10	4	10	33	78	5.95	3.34
	%	6.4	16.7	3.8	12.8	5.1	12.8	55.1			
Review student recruitment policies, practices and materials to assure that they are nondiscriminatory in accord with applicable state and federal laws	N	3	9	2	4	2	11	45	76^a	7.07	3.05
	%	3.9	11.8	2.6	5.3	2.6	14.5	73.7			
Review student admission policies, practices and materials to assure that they are nondiscriminatory in accord with applicable state and federal laws	N	4	5	1	4	2	10	49	75^b	7.45	2.79
	%	5.3	6.7	1.3	5.3	2.7	13.3	78.6			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

a. 2 Directors did not respond
b. 3 Directors did not respond

STUDENT-ORIENTED ACTIVITIES

This section discusses the degree to which LEAs are sponsoring programs or making services available for students in an effort to foster greater sex equity. These activities are more "action" oriented. LEA Directors were asked about five student-oriented and one community-oriented activity. Their responses are displayed in Table B.9a.

The table reveals that, in general, these activities are "informally implemented." Thirty-eight percent have implemented activities to make students aware of nontraditional options. For all other activities listed the percentage of LEAs with no plans or who don't know if they will implement are higher than the percentages who are implementing. While 24% and 22% of the LEAs have implemented day care and community liaison activities respectively, over half have no plans in this regard. The percentage of LEAs undertaking these student- or community-oriented activities is generally smaller than the percentage undertaking data collection, monitoring, and review activities.

Questions regarding student- and community-oriented activities were also asked of the Directors of Counseling at the LEA level. Their responses are presented in Table B.9b. The following can be observed from this table, and by comparing these data with those presented in Table B.9a.

- Sixty-three percent of the counselors report that programs to encourage nontraditional enrollment are being implemented.
- Approximately 47% and 39% of the counselors report that their LEAs are implementing programs to alert students to inequities and making special guidance services available to nontraditional students.
- Twenty-two percent of the counselors report their LEAs are engaged in community liaison activities. Twenty-nine percent report they are providing day-care services.
- The rank ordering of activities by percentage of LEAs implementing them is essentially the same when using the responses of Local Directors as when the responses of LEA counselors are used.
- Consistently larger percentages of counseling directors than local directors indicate that each activity is already implemented. Directors of counseling were present in only

Table B.9a

STUDENT- AND COMMUNITY-ORIENTED ACTIVITIES
RESPONSES OF LEA DIRECTORS

Item		(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	N Total	$\bar{X}$*	Std. Dev.
Sponsor or conduct programs to alert students to potential inequities in education or the labor market	N	4	30	7	22	4	14	14	95[a]	4.22	3.07
	%	4.2	31.6	7.4	23.2	4.2	14.7	14.7			
Sponsor or conduct programs to encourage students to enter nontraditional programs	N	3	25	7	22	3	13	23	96	4.82	3.21
	%	3.9	26.0	7.3	22.9	3.1	13.5	24.0			
Sponsor or conduct special job development, placement, or follow-up programs or activities for students in nontraditional occupational areas	N	1	31	7	27	6	13	10	95[a]	4.05	2.84
	%	1.1	32.6	7.4	28.4	6.3	13.7	10.5			
Make special guidance and counseling services available to nontraditional students	N	4	33	4	24	4	10	15	95[a]	4.04	3.07
	%	4.3	35.1	4.3	25.5	4.3	10.6	16.0			
Make day care services available to children of vocational students	N	7	47	3	2	5	4	16	84[b]	3.24	3.31
	%	8.3	56.0	3.6	2.4	6.0	4.8	19.0			
Sponsor or conduct programs for employers or community organizations (e.g., unions, PTA, service clubs) to alert them to the problems of sex equity	N	3	51	8	11	3	7	13	96	3.23	3.04
	%	3.1	53.1	8.3	11.5	3.1	7.3	13.5			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

a. 1 LEA Director did not respond.

b. 12 LEA Directors did not respond.

Table B.9b

STUDENT- AND COMMUNITY-ORIENTED ACTIVITIES
RESPONSES OF LEA DIRECTORS OF COUNSELING

Item		(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	Total	$\bar{X}$*	Std. Dev.
Sponsor or conduct programs to alert students to potential inequities in education or the labor market	N	5	7	2	8	4	14	9	49	3.76	1.87
	%	10.2	14.3	4.1	16.3	8.2	28.6	18.4	100.0		
Sponsor or conduct programs to encourage students to enter nontraditional programs	N	2	7	1	7	1	18	13	49	4.29	1.78
	%	4.1	14.3	2.0	14.3	2.0	36.7	26.5	100.0		
Sponsor or conduct special job development, placement, or follow-up programs or activities for students in nontraditional occupational areas	N	8	12	1	12	1	8	7	49	3.16	1.97
	%	16.3	24.5	2.0	24.5	2.0	16.3	14.3	100.0		
Make special guidance and counseling services available to nontraditional students	N	1	13	1	15	0	6	13	49	3.76	1.96
	%	2.0	26.5	2.0	30.6	0.0	12.2	26.5	100.0		
Make day care services available to children of vocational students	N	13	16	1	1	3	3	11	48[a]	2.60	2.17
	%	27.1	33.3	2.1	2.1	6.3	6.3	22.9	100.0		
Sponsor or conduct programs for employers or community organizations (e.g., unions, PTA, service clubs) to alert them to the problems of sex equity	N	7	19	1	7	4	5	6	49	2.63	1.93
	%	14.3	38.8	2.0	14.3	8.2	10.2	12.2	100.0		

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

a. 1 LEA Counselor did not respond.

half of the LEAs; it is possible that these were the most active LEAs.

Activities to Meet the Needs of Older Women Returning to School

Local directors were asked if their agencies were undertaking special activities to meet the needs cf older women returning to school. The results, by type of school over which the director has jurisdiction, are presented in Table B.10a. It can be seen that LEA directors of technical institutes, junior colleges, and vocational centers are most likely to state that these activities are undertaken. These three types of schools are also the most likely to enroll older students.

A series of questions was then asked to gain information on the types of activities which are being provided. These questions were asked of both LEA Directors and the Directors of Counseling at the LEA level. The responses of local directors are presented in Table B.10b; those of the local director of vational guidance and counseling in Table B.10c. The percentages shown on these tables are the percentage of those responding. They are much lower when the LEA personnel who indicated no activities for older women are considered. The following facts emerge from a review of the tables.

- Local directors report the greatest activity in terms of providing evening classes for women who work during the day. Seventy-two percent of those responding report this activity is currently being implemented. (Approximately 44% of the total population of LEAs.)
- Over half of the responding local directors (approximately 37% of all LEAs) report they are providing special re-entry programs for women who have been out of the labor market for an extended period.
- Less than half the responding directors report their agencies are providing remedial programs, special counseling, or financial assistance; the lowest of these being the provision of financial assistance with only 38% of the directors indicating this implemented (approximately 23% of all LEAs).
- LEA counselors also report the greatest activity on evening classes, followed by special re-entry and counseling programs. They also indicate the least amount of activity in terms of providing financial assistance during training for women who have been out of the labor market for an extended period.

Table B.10a

NUMBER AND PERCENT OF LOCAL EDUCATION AGENCIES PROVIDING PROGRAMS FOR OLDER WOMEN RETURNING TO SCHOOL

Type of School		Not applicable	Don't know	No	Yes	N Total
Vocational High School	N	3	0	1	2	6
	%	50.0	0.0	16.7	33.3	100.0
Comprehensive High School	N	15	2	14	30	61
	%	24.6	3.3	23.0	49.2	100.0
Technical Institute	N	0	0	1	2	3
	%	0.0	0.0	33.3	66.7	100.0
Junior College	N	0	0	4	8	12
	%	0.0	0.0	33.3	66.7	100.0
Vocational Center	N	1	0	2	13	16
	%	6.3	0.0	12.5	81.3	100.0
TOTAL	N	19	2	22	55	98[a]
	%	19.4	2.1	22.5	56.1	100.0

[a] Two of the 96 local directors interviewed had jurisdiction over two schools in the sample. In each case the two schools were of different types. Therefore the responses of these local directors have been included twice, once for each type of school.

Table B.10b

SPECIAL STEPS TO MEET THE NEEDS OF OLDER WOMEN RETURNING TO SCHOOL: RESPONSES OF LOCAL DIRECTORS

N = 58[a]

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	N Total	$\bar{X}$*	Std. Dev.
Provide special reentry programs for women who have been out of the labor market for an extended period	N	4	0	9	1	6	3	11	24	58	6.57	3.08
	%	6.9	0.0	15.5	1.7	10.3	5.2	19.0	41.4			
Provide remedial programs for women lacking background to enter traditionally male fields	N	4	0	19	1	9	0	5	20	58	5.15	3.58
	%	6.9	0.0	32.8	1.7	15.5	0.0	8.6	34.5			
Provide evening classes for women who work during the day	N	4	0	7	0	3	2	5	37	58	7.44	2.85
	%	6.9	0.0	12.1	0.0	5.2	3.4	8.6	63.8			
Provide special counseling for women who have been out of the labor market for an extended period	N	4	0	16	0	12	0	9	17	58	5.35	3.41
	%	6.9	0.0	27.6	0.0	20.7	0.0	15.5	29.3			
Provide financial assistance during training for women who have been out of the labor market for an extended period	N	7	0	21	0	7	1	6	16	58	4.82	3.61
	%	12.1	0.0	36.2	0.0	12.1	1.7	10.3	27.6			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

[a] 38 local directors report no special steps for re-entry women were taken.

Table B.10c

SPECIAL STEPS TO MEET THE NEEDS OF OLDER WOMEN RETURNING TO SCHOOL

RESPONSES OF DIRECTORS OF GUIDANCE AND COUNSELING

N = 32[a]

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	Total	$\bar{X}$*	Std. Dev.
Provide special re-entry programs for women who have been out of the labor market for an extended period	N	3	1	4	0	4	0	2	18	32	4.79	1.90
	%	9.4	3.1	12.5	0.0	12.5	0.0	6.3	56.3	100.0		
Provide remedial programs for women lacking background to enter traditionally male fields	N	3	7	1	0	4	0	3	14	32	4.28	2.10
	%	9.4	21.9	3.1	0.0	12.5	0.0	9.4	43.8	100.0		
Provide evening classes for women who work during the day	N	3	1	1	0	1	0	2	24	32	5.59	1.12
	%	9.4	3.1	3.1	0.0	3.1	0.0	6.3	75.0	100.0		
Provide special counseling for women who have been out of the labor market for an extended period	N	3	0	5	0	4	0	3	17	32	4.76	1.88
	%	9.4	0.0	15.6	0.0	12.5	0.0	9.4	53.1	100.0		
Provide financial assistance during training for women who have been out of the labor market for an extended period	N	3	2	15	0	4	0	1	7	32	2.76	2.21
	%	9.4	6.3	46.9	0.0	12.5	0.0	3.1	21.9	100.0		

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

[a] 17 LEA counselors reported no special steps for re-entry women were taken.

An analysis of the provision of evening classes by type of school in the LEA shows that 89% of LEA directors of junior colleges in our sample and 70% of LEA directors of vocational centers in the sample have fully implemented this activity. This compares with 58% for LEA directors of comprehensive high schools, 50% for technical institutes, and 33% for vocational high schools. The relatively high level of implementation at post-secondary types of schools, particularly the junior/community college, may be due in part to the existence of evening classes as a traditional feature of such schools. Thus the provision of evening classes would not represent a new, concerted effort to meet the needs of older women returning to school.

Activities to Meet the Needs of Minority Students, Particularly Women

The LEA counselors were asked if they felt minority women need special kinds of guidance services that differ from those required by white women. Sixty-three percent of the counselors responded yes. Approximately 18% said no and an additional 18% were not sure. Thus there is a fairly clear feeling among LEA counselors that special services should be provided to minority women. Table B.11a shows that greater percentages of local Directors in the West and South indicated such services are being provided.

Responses of local Directors to the types of services which might be provided are shown in Table B.11b; responses of LEA counselors are presented in Table B.11c. The percentages reported in the tables are for those individuals who reponded to the questions. Those individuals who indicated there was no activity to meet the needs of minority students are not included. If they were, the percentage of LEAs at each stage of implementation would be much lower.

Table B.11b shows that the activities which the greatest percentage of local Directors report as currently being implemented are sponsoring or conducting cultural awareness programs for staff dealing with minority concerns (34% of the total sample of LEAs) and providing English as a Second Language program or other linguistic support services for non-English dominant students (33% of the total sample). Over half the responding local directors report that their agencies have begun or completed implementation

Table B.11a

NUMBER AND PERCENT OF LOCAL EDUCATION AGENCIES TAKING SPECIAL STEPS TO MEET THE NEEDS OF MINORITY STUDENTS

N = 95[a]

Census Bureau Region		(-) Not Applicable	(1) No	(2) Yes	N Total
North East	N	3	6	9	18
	%	16.7	33.3	50.0	
North Central	N	11	5	13	29
	%	37.9	17.2	44.8	
South	N	2	7	20	29
	%	6.9	24.1	69.0	
West	N	3	1	15	19
	%	15.8	5.3	78.9	
TOTAL	N	19	19	57	95
	%	20.0	20.0	60.0	100.0

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*Values used in computing $\bar{X}$ are indicated in parentheses at top of each column.

[a] One LEA director did not respond.

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Table B.11b

SPECIAL STEPS TO MEET THE NEEDS OF MINORITY STUDENTS: RESPONSES OF LEA DIRECTORS

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	N Total Answering	N No Answer	Total N	$\bar{X}$*	Std. Dev.
Provide special training for counselors in serving minority women and/or offer alternative counseling approaches	N	6	0	16	2	12	1	6	8	51	45	96	4.33	3.16
	%^{a}	11.8	0.0	31.4	3.9	23.5	2.0	11.8	15.7					
Sponsor or conduct cultural awareness programs or staff dealing with minority concerns	N	5	0	10	1	11	0	13	20	60	36	96	6.20	3.14
	%^{a}	8.3	0.0	16.7	1.7	18.3	0.0	21.7	33.3					
Provide native language examinations for minority students	N	20	0	14	0	5	1	6	9	55	41	96	4.80	3.54
	%^{a}	56.4	0.0	25.5	0.0	9.1	1.8	10.9	16.4					
Undertake special programs or activities to place minority women	N	8	0	29	2	8	2	4	5	58	38	96	3.08	2.90
	%^{a}	13.8	0.0	50.0	3.4	13.8	3.4	6.9	8.6					
Provide English as a Second Language programs or other linguistic support services for non-English dominant students	N	19	0	7	1	0	1	6	26	60	36	96	7.24	3.08
	%^{a}	31.7	0.0	11.7	1.7	0.0	1.7	10.0	43.3					
Undertake special programs, activities or procedures to attract minority women	N	11	0	18	2	9	0	6	11	57	39	96	4.50	3.41
	%^{a}	19.3	0.0	31.6	3.5	15.8	0.0	10.5	19.3					
Provide special career awareness programs for minority group members	N	5	0	17	3	12	0	8	14	59	37	96	4.89	3.34
	%^{a}	8.5	0.0	28.8	5.1	20.3	0.0	13.6	23.7					

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

[a] Percentage computed among total answering.

Table B.11c

SPECIAL STEPS TO MEET THE NEEDS OF MINORITY STUDENTS:
RESPONSES OF LEA DIRECTORS OF COUNSELING

N = 34[a]

Item		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	Total	$\bar{X}$*	Std. Dev.
Provide training for counselors in serving minority women	N	4	0	8	1	8	2	5	6	34	3.63	1.88
	%	11.8	0.0	23.5	2.9	23.5	5.9	14.7	17.6	100.0		
Sponsor cultural awareness program for staff about minorities	N	2	0	4	2	2	0	13	11	34	4.66	1.62
	%	5.9	0.0	11.8	5.9	5.9	0.0	38.2	32.4	100.0		
Provide native language examinations for minority students	N	6	3	7	2	0	1	6	9	34	3.61	2.25
	%	17.6	8.8	20.6	5.9	0.0	2.9	17.6	26.5	100.0		
Undertake special programs to place minority women	N	7	3	8	2	5	1	1	7	34	3.15	2.13
	%	20.6	8.8	23.5	5.9	14.7	2.9	2.9	20.6	100.0		
Provide linguistic services for those who are non-English dominant	N	5	1	2	1	1	0	5	19	34	5.14	1.60
	%	14.7	2.9	5.9	2.9	2.9	0.0	14.7	55.9	100.0		
Undertake special programs to attract minority women	N	10	1	11	2	3	0	0	7	34	2.91	2.24
	%	29.4	2.9	32.4	4.1	8.8	0.0	0.0	20.6	100.0		
Provide career awareness programs for minority groups	N	4	0	12	1	4	0	4	9	34	3.47	2.22
	%	11.8	0.0	35.3	2.9	11.8	0.0	11.8	26.5	100.0		

*Values used in computing X (mean) are the numbers in parenthesis at the top of each column.

[a] Fifteen Directors of Counseling indicated no steps were taken.

of these activities. The activities which are receiving the least attention are special programs or activities to attract and place minority women. An analysis of the first two items by census bureau region shows that the greatest amount of activity is taking place in the West (Table B.11d and B.11e). Large numbers of Hispanic, Asian, and Native American students reside in the West, which may account for this finding.

SUMMARY

This chapter has presented data on efforts at the local education agency level to reduce sex inequity. The following points summarize the major findings.

Staffing Patterns at the Local Education Agency Level

- Over 90% of the Local Directors of Vocational Education are men; and over 70% of the Local Directors of Guidance and Counseling are men.
- Men and women serving as Local Directors of Vocational Education and Directors of Guidance and Counseling do not differ significantly in experience.

Data Collection, Dissemination, Monitoring, and Review Activities

- Approximately 60% of LEAs are reviewing and monitoring for sex equity, but only 20% to 40% are sponsoring research or programs for students.
- Approximately 69% of LEAs are monitoring laws prohibiting sex discrimination in hiring, firing, and promotion procedures. However, fewer LEAs are actively engaged in affirmative action activities for staff: 41% of the total sample are attempting to hire women for administrative positions normally held by men. All other staff affirmative action activities are engaged in by fewer than 25% of the total LEA sample.

Student-Oriented Activities

- Of the activities designed for students, approximately 38% of LEAs report they are sponsoring programs to make students aware of, or encourage them to enter, nontraditional programs; 29% are sponsoring programs to make students aware of inequities; 27% are making special guidance and counseling service available; and 24% are sponsoring special job development, placement, or followup activities.

Table B.11d

LOCAL EDUCATION AGENCIES PROVIDING ESL AND LINGUISTIC SUPPORT SERVICES: RESPONSES OF LOCAL DIRECTORS

N = 60[a]

Census Region		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	N Total	$\bar{X}$*	Std. Dev.
North East	N	2	0	1	0	0	0	3	3	9	7.48	2.88
	%	22.2	0.0	11.1	0.0	0.0	0.0	33.3	33.3			
North Central	N	6	0	2	0	0	1	0	6	15	6.78	3.53
	%	40.0	0.0	13.3	0.0	0.0	6.7	0.0	40.0			
South	N	10	0	2	1	0	0	2	5	20	6.60	3.47
	%	50.0	0.0	10.0	5.0	0.0	0.0	10.0	25.0			
West	N	1	0	2	0	0	0	1	12	16	7.87	2.80
	%	6.3	0.0	12.5	0.0	0.0	0.0	6.3	75.0			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

[a] 36 Local directors did not respond.

Table B.11e

LOCAL EDUCATION AGENCIES CONDUCTING CULTURAL AWARENESS PROGRAMS FOR STAFF DEALING WITH MINORITY CONCERNS: RESPONSES OF LOCAL DIRECTORS

N = 60[a]

Census Region		(-) Not applicable	(1) Don't know	(1) No plans	(3) Will do it; no formal plans	(4) Informally implemented	(5) Formal planning begun	(8) Implementation begun	(9) Fully implemented or completed	N Total	$\bar{X}$*	Std. Dev.
North East	N	0	0	2	0	1	0	5	1	9	6.11	3.22
	%	0.0	0.0	22.2	0.0	11.1	0.0	55.6	11.1			
North Central	N	4	0	1	0	2	0	3	5	15	7.09	2.77
	%	26.7	0.0	6.7	0.0	13.3	0.0	20.0	33.3			
South	N	1	0	6	1	5	0	3	4	20	4.68	3.28
	%	5.0	0.0	30.0	5.0	25.0	0.0	15.0	20.0			
West	N	0	0	1	0	3	0	2	10	16	7.44	2.61
	%	0.0	0.0	6.3	0.0	18.8	0.0	12.5	62.5			

*Values used in computing $\bar{X}$ (mean) are the numbers in parenthesis at the top of each column.

[a] 36 Local directors did not respond.

- Only 21% of LEAs are sponsoring activities for employees or community organizations to alert them to the problems of inequity.

- Sixty percent of LEA directors indicated they were implementing at least one type of activity to meet the needs of older women returning to school. For approxmately 44% this meant that evening classes were offered. Thirty-seven percent are providing special re-entry programs for older women.

- Fifty-nine percent of LEA directors indicated their LEA was implementing at least one activity to meet the needs of minority students. Thirty-four percent are providing cultural awareness programs for staff; 33% are providing English-as-a-Second-Language and other linguistic support services. Regional differences favor the West and South.

II.C SCHOOL LEVEL EFFORTS TO ADDRESS INEQUITIES

This chapter is concerned primarily with the answers to two questions, "What are the figures on staffing and enrollment?" and "Do school practices further equity or impede it?" The former question is addressed in "Part I: Enrollment and Staffing Patterns," and the latter in "Part II: School Practices Related to Sex Equity."

By way of preview, Part I not only discusses the staffing and enrollment figures collected in the present study, but puts these data in perspective by comparing them with the results of previous studies. To gain a full understanding of enrollment patterns of males and females in vocational education it is necessary to examine the patterns within each specific occupational training area, rather than within just the seven broad areas. This type of analysis allows one to determine if the gain in female enrollment in the trade and industrial area, for example, is accounted for by a gain in the traditionally female field of cosmetology or in a traditionally male field such as auto mechanics. Using 1972 BOAE enrollment figures, training programs have been classified as traditionally female (80% or more female), traditionally male (80% or more male), or mixed (nonstereotyped). Throughout this and subsequent chapters, training programs will be referred to as traditionally male, female, and mixed (nonstereotyped). Also addressed in Part I are the background and characteristics of traditional and nontraditional students, their occupational preferences, and their plans for the future.

Part II discusses, in turn, school efforts to overcome inequities that affect staff and students, ways in which students are placed in programs, and the effect on students of the attitudes and actions of school personnel. Together, these topics present a picture of those areas in which schools are working to reduce sex inequities and those in which inequities persist, or in which further efforts are needed.

PART I: ENROLLMENT AND STAFFING PATTERNS

This part examines enrollment and staffing patterns in vocational education by first reviewing background information gathered in previous research, then by examining in detail the patterns revealed in the present study. The following topics compose this part:

- Background Data from Previous Research.
- The New Data: Enrollment Patterns in Vocational Programs in 1978.
- Staffing Patterns at the School Level.

The second and third topics present data collected during the Vocational Education Equity Study. In addition to simply reporting numbers, the discussion under each topic also explores the background and characteristics of traditional and nontraditional staff and students. Attention is also given under these topics to the relationship between activities undertaken to lessen inequities and observed staffing and enrollment patterns.

BACKGROUND DATA FROM PREVIOUS RESEARCH

Two kinds of background information are of interest: (1) data on enrollment and staffing patterns in vocational education; and (2) data on the racial makeup of the United States.* The first provides a reference point for observing any changes that may have occurred in vocational education over the last several years. The second allows the comparison of the representation of members of various racial groups in vocational education with their representation in the population as a whole.

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*'Race' and 'ethnic' group will be used interchangeably throughout this report. The groups intended by either term are: Whites not of Hispanic origin; Blacks not of Hispanic origin; Hispanics; Asians and Pacific Islanders; American Indians and Native Alaskans. Exceptions to this grouping, sometimes necessitated by alternate groupings in existing data, will be clearly indicated.

Enrollment and Staffing Patterns in Vocational Education.

Data from two sources are available: information collected by the Office of Civil Rights (OCR) in a 1974 survey of 'area vocational schools'; and enrollment figures gathered by the Bureau of Occupational and Adult Education (BOAE) in 1972, 1975, and 1976.

BOAE data. Table C.1 shows enrollment figures for Fiscal Years 1972, 1975, and 1976.* While interpretation is somewhat complicated by irregular reporting procedures used by several states (see footnotes on the table), the following emerge from a review of the table:

- Three occupational areas--health, home economics, and business and office--had upwards of 75% female enrollment for Fiscal Year 1972. Three other occupational areas--technical, trade and industrial, and agriculture--had more than 88% male enrollment that same year. Using Fiscal Year 1972 as a base, these will be referred to, respectively, as 'traditionally female' and 'traditionally male' occupational areas for the balance of this report. The seventh occupational area--distributive education--was 45.3% female in Fiscal Year 1972 and will be referred to as 'traditionally mixed'.
- Within each occupational area, there are occupations which, on the basis of the Fiscal Year 1972 data, deviate from the characterization as traditionally male, female, or mixed that applies to the area as a whole. Enrollment in these occupations, as well as those that conform to the overall characterization are listed in Table C.1. A list of occupations within each occupational area classified as traditionally male, female, or mixed is given in Appendix A2.
- The number of men in each of the traditionally female occupational areas increased by about 15% of the total enrollment between 1972 and 1976. Increases occurred both in the traditionally female and traditionally mixed occupations. In health, the increase in male enrollment was greater in the traditionally mixed than in the traditionally female occupations; in home economics and in business and office, the situation was reversed.

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*Data for 1975 are not discussed in detail because of the difficulties presented by the number of states not reporting enrollment by sex. The percentage of male enrollment, based on the data available, was greater than in either 1972 or 1976 for each occupational area except agriculture. This was also the most typical state for traditionally male, female or mixed occupations within the occupational areas.

Table C.1[a]

ENROLLMENT IN CLASSES TRAINING STUDENTS FOR TRADITIONALLY MALE, TRADITIONALLY FEMALE, AND MIXED OCCUPATIONS IN EACH OF THE SEVEN MAJOR OCCUPATIONAL AREAS

	Fiscal Year 1972			Fiscal Year 1975[b]			Fiscal Year 1976[c]		
	Total	Men %	Women %	Total	Men %	Women %	Total	Men %	Women %
Health[d]									
Traditionally Female	250,131	8.0	92.0	421,700	32.2	67.8	445,156	19.5	80.5
Mixed	86,521	35.1	64.9	195,016	59.9	40.1	239,748	50.5	49.5
TOTAL	336,652	15.3	84.7	616,716	40.9	59.1	684,904	30.4	69.6
Home Economics[d]									
Traditionally Female	3,169,646	6.9	93.1	3,393,888	7.5	92.5	3,655,448	23.2	76.8
Mixed	276,052	25.3	74.7	352,652	44.8	55.2	330,883	30.3	69.7
TOTAL	3,445,698	8.4	91.6	3,746,540	30.6	69.4	3,986,331	23.8	76.2
Business and Office[d]									
Traditionally Female	1,577,326	14.0	86.0	1,874,051	43.7	56.3	1,948,495	30.2	69.8
Mixed	775,446	43.2	56.8	1,077,014	62.4	37.6	1,166,197	53.1	46.9
TOTAL	2,352,772	23.6	76.4	2,951,065	50.5	49.5	3,114,692	38.8	61.2
Marketing and Distribution									
Traditionally Male	26,367	78.0	22.0	31,119	85.7	14.3	32,040	86.2	13.8
Traditionally Female	5,231	30.9	69.1	6,187	49.0	51.0	8,316	20.5	79.5
Mixed	608,825	53.9	46.1	835,918	65.0	35.0	860,248	58.7	41.3
TOTAL	640,423	54.7	45.3	873,224	65.6	34.4	900,604	59.3	40.7
Technical[e]									
Traditionally Male	318,948	91.4	8.6	429,702	92.5	7.5	466,124	91.7	8.3
Mixed	18,121	69.8	30.2	17,634	75.2	24.8	18,683	70.4	29.6
TOTAL	337,069	90.2	9.8	447,336	91.8	8.2	484,807	90.9	9.1
Trade and Industrial									
Traditionally Male	2,199,111	93.5	6.5	2,759,389	94.3	5.7	2,846,931	93.5	6.5
Traditionally Female	62,166	9.1	90.9	94,111	35.3	64.7	89,819	23.9	76.1
Mixed	136,691	41.7	58.3	163,009	57.3	42.7	173,200	50.9	59.1
TOTAL	2,397,968	88.3	11.7	3,016,509	90.4	9.6	3,109,950	89.1	10.9
Agriculture[e]									
Traditionally Male	840,131	96.1	3.9	906,797	94.0	6.0	941,347	92.3	7.7
Mixed	56,329	73.1	26.9	105,798	75.6	24.4	118,370	68.0	32.0
TOTAL	896,460	94.6	5.4	1,012,595	92.1	7.9	1,059,717	89.9	10.4

[a] Source: Summary Data Vocational Education for Fiscal Years 1972, 1975, 1976. Bureau of Occupational and Adult Education, USOE, DHEW.

[b] Enrollment by sex not reported by Delaware, Florida, Illinois, Rhode Island, and South Carolina. California reported only total female enrollment

[c] California reported only total female enrollment.

[d] No traditionally male occupations within this area.

[e] No traditionally female occupations within this area.

- The number of women enrolled in the technical and in the trade and industrial occupational areas declined slightly between 1972 and 1976 (less than 1% in either case); in agriculture, the decline was 5% of total enrollment. Similar results occurred in traditionally male occupations within these areas. Female enrollment in traditionally mixed occupations declined slightly in the technical area (by .7% of the total); in trade and industrial, the decline was 9.2% of the total enrollment in mixed occupations. Women increased their enrollment in mixed occupations in agriculture by 5.1% of the total. The only traditionally female occupations within traditionally male occupational areas are in trade and industrial, where female enrollment declined from 90.7% of the total to 76.1%. (Cosmetology is commonly placed under trade and industrial.)

- In marketing and distribution, men increased their enrollment from 78% to 86% in traditionally male occupations, and from 54% to 59% in mixed occupations. In traditionally female occupations, their representation declined from 31% to 20.5%.

In sum, the BOAE data show some movement of men into traditionally female occupational areas. With the exception of a slight movement within agriculture, they do not show the converse.

OCR data. Tables C.2 and C.3 show enrollment and staffing data collected by the Office of Civil Rights in a 1974 survey of 'area vocational schools'.* These data, coming as they do from a year between 1972 and 1976, provide a useful check on the trends (or lack of them) observed in the BOAE data. The following observations emerge from a review of Table A.2:

- Women are clearly in the majority in each of the traditionally female occupational areas and, in two of three cases, the OCR data lie between the 1972 and 1976 BOAE data. The exception is in health where the OCR figure of 89.4% is higher than BOAE data for either year. For traditionally female occupations within each area, OCR figures show a higher percentage of women than do any of the BOAE data, except that the 1972 BOAE figure in home economics is practically identical to the OCR figure; in each case, OCR data show female enrollment to be above 90% of the total.

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*Data presented in these tables represent a 50% sample of the OCR data. These data were analyzed especially for this study and are not, so far as we know, reported elsewhere. The OCR data include all types of schools included in the present study, except comprehensive high schools.

Table C.2

ENROLLMENT IN TRADITIONALLY MALE, FEMALE, AND MIXED PROGRAMS

	Number of Students	Percentage by Sex				Percentage by Race					Percentage by Race and Sex									
		Men		Women		White	Black	Hispanic	American Indian	Asian	White Men	Black Men	Hispanic Men	American Indian Men	Asian Men	White Women	Black Women	Hispanic Women	American Indian Women	Asian Women
Health																				
Traditionally Female	37,035	2,299	6.2	34,736	93.8	84.7	11.3	2.6	0.5	0.8	5.1	0.7	0.3	0.0	0.1	79.6	10.6	2.3	0.5	0.7
Tradftionally Mixed	6,518	2,335	35.8	4,183	64.2	76.7	18.2	3.5	0.5	1.1	27.0	6.2	1.7	0.3	0.6	49.7	12.0	1.8	0.2	0.6
Total	43,553	4,634	10.6	38,919	89.4	83.5	12.3	2.3	0.5	0.8	8.4	1.5	0.5	0.0	0.1	75.1	10.8	2.2	0.5	0.7
Home Economics																				
Traditionally Female	17,367	1,217	7.0	16,150	93.0	76.5	18.3	3.0	0.5	1.6	5.6	0.9	0.3	0.1	1.5	70.9	17.4	2.8	0.4	1.5
Traditionally Mixed	3,706	1,345	6.3	2,361	63.7	82.8	13.7	2.9	0.4	0.2	29.2	5.9	0.9	0.1	0.2	53.6	7.7	2.0	0.2	0.2
Total	21,073	2,562	12.2	18,511	87.8	77.6	17.5	3.1	0.5	1.4	9.8	1.8	0.4	0.1	0.1	67.9	15.7	2.7	0.4	1.2
Business & Office																				
Traditionally Female	36,119	2,684	7.4	33,435	92.6	79.1	15.3	3.7	0.8	1.1	5.5	1.4	0.4	0.1	0.1	73.6	13.8	3.3	0.8	1.0
Traditionally Mixed	39,856	21,800	54.7	18,056	45.3	79.9	15.1	3.5	0.5	0.9	44.0	7.7	2.2	0.3	0.6	35.9	7.5	1.3	0.2	0.4
Total	75,975	24,484	32.0	51,591	68.0	79.5	15.2	3.6	0.7	1.1	25.7	4.7	1.3	0.2	0.3	53.8	10.5	2.3	0.5	0.7
Distributive Education																				
Traditionally Male	1,148	643	56.0	505	44.0	91.5	2.9	3.8	0.4	1.3	51.3	1.4	2.4	0.3	0.6	40.2	1.6	1.5	0.1	0.7
Traditionally Female	20	5	25.0	15	75.0	95.0	5.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	70.0	5.0	0.0	0.0	0.0
Traditionally Mixed	22,206	13,235	59.6	8,971	40.4	84.1	9.6	3.9	0.6	1.8	50.0	0.3	2.6	0.3	1.1	34.2	4.0	1.3	5.6	0.7
Total	23,374	13,883	59.4	9,491	40.6	84.5	9.3	3.9	0.6	1.8	50.0	5.4	2.6	0.3	1.1	34.5	3.9	1.3	0.3	0.7
Technical																				
Traditionally Male	37,416	34,741	92.9	2,675	7.1	86.0	9.3	3.5	0.5	0.6	80.0	8.5	3.2	0.5	0.6	6.8	0.0	0.3	0.0	0.0
Traditionally Female	658	343	52.1	315	47.9	88.4	10.5	0.9	0.2	0.0	46.5	5.0	0.6	0.0	0.0	41.9	5.5	0.3	0.2	0.0
Traditionally Mixed	1,368	772	56.4	596	43.6	84.2	10.6	4.0	0.3	0.9	46.1	6.1	3.2	0.3	0.7	38.1	4.5	0.8	0.0	0.1
Total	39,442	35,856	23.8	3,586	9.1	86.0	9.4	3.5	0.5	0.6	78.3	8.4	3.2	0.5	0.6	7.7	1.0	0.3	0.2	0.0
Trade & Industrial																				
Traditionally Male	133,682	129,041	96.5	4,641	3.5	85.3	10.8	2.6	0.6	0.6	82.5	10.4	2.5	0.6	0.6	2.9	0.4	0.1	0.0	0.0
Traditionally Female	9,200	265	2.9	8,935	97.1	86.6	10.7	1.9	0.4	0.3	2.2	0.5	0.1	0.0	0.0	84.4	10.3	1.8	0.4	0.3
Mixed	7,893	3,759	47.6	4,134	52.4	77.7	18.7	2.5	0.5	0.5	35.5	10.2	1.4	0.3	0.2	42.2	8.5	1.1	0.2	0.3
Total	150,775	133,065	88.3	17,710	11.7	85.0	11.2	2.5	0.6	0.6	75.1	9.8	2.3	0.6	0.6	9.9	1.4	0.2	0.0	0.1
Agriculture																				
Traditionally Male	9,762	9,029	92.5	733	7.5	93.8	4.7	1.1	0.3	0.2	86.5	4.6	1.1	0.3	0.1	7.3	0.1	0.1	0.0	0.0
Traditionally Mixed	2,811	1,820	64.7	991	35.3	88.9	7.5	2.4	0.5	0.6	55.8	6.0	2.1	0.4	0.5	33.1	1.6	0.4	0.1	0.1
Total	12,573	10,849	86.3	1,724	13.7	95.9	5.3	1.4	0.3	0.3	82.8	4.9	1.3	0.3	0.2	13.1	0.4	0.1	0.0	0.0

Data presented here represent a 50% sample of the 1974 Office of Civil Rights survey of area vocational schools. Data were analyzed especially for the present study and are not, so far as we know, reported elsewhere.

Table C.3

NUMBER OF TEACHERS BY RACE AND SEX (OCR DATA)

	Number of Teachers	Percentages by Sex		Percentages by Race					Percentages by Race and Sex									
									White		Black		Hispanic		American Indian		Asian	
		Men	Women	White	Black	Hispanic	American Indian	Asian	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Health	2,564	11.2	88.8	92.2	5.1	0.8	0.4	1.5	10.4	81.8	0.6	4.6	0.2	0.6	0.1	0.3	0.1	1.4
Home Economics	603	15.6	84.4	85.9	9.8	0.2	0.5	3.6	14.1	71.8	1.5	8.3	0.0	0.2	0.0	0.5	0.0	3.6
Business & Office	2,487	46.2	53.7	91.2	5.5	0.8	0.2	2.3	43.9	47.3	1.0	4.6	0.5	0.3	0.1	0.1	0.8	1.4
Distributive Education	695	73.1	26.9	96.8	1.6	0.6	0.4	0.6	70.9	25.9	0.9	0.7	0.6	0.0	0.1	0.3	0.6	0.0
Technical	2,079	91.7	8.3	95.9	2.3	0.5	0.1	1.2	88.3	7.6	1.9	0.4	0.5	0.0	0.0	0.0	1.0	0.2
Trade & Industrial	6,221	90.9	9.1	92.5	5.3	0.5	0.2	1.4	84.7	7.8	4.3	1.0	0.4	0.0	0.2	0.0	1.3	0.2
Agriculture	520	95.0	5.0	95.0	3.1	1.2	0.4	0.4	90.4	4.6	2.7	0.4	1.2	0.0	0.4	0.0	0.4	0.0

Data presented here represent a 50% sample of the 1974 Office of Civil Rights survey of area vocational schools. Data were analyzed especially for the present study and are not, so far as we know, reported elsewhere.

For traditionally mixed occupations, OCR figures show women to make up 64.2% of the enrollment in health, 63.7% in home economics, and 45.3% in business and office. Each of these is lower than the corresponding 1972 BOAE figure, but there is no consistent relationship to the 1976 BOAE figures--the OCR health figure is higher, the other two are lower.

- Men are clearly in the majority in traditionally male occupational areas, from a high of 90.1% in technical, to a 'low' of 86.3% in agriculture, with trade and industrial in between at 88.3%. Each of these lies within four percentage points of the corresponding 1976 BOAE figure. Male dominance is most pronounced in traditionally male occupations within each area: 92.9% in technical, 96.5% in trade and industrial, and 92.5% in agriculture. The first two figures are higher than the BOAE figures for either 1972 or 1976, while the last lies between the BOAE data for those years.

Women are substantially more represented in traditionally mixed occupations in the technical area according to the OCR than to the BOAE data--43.6% as against 30.2% and 29.6% for 1972 and 1976, respectively. Figures for trade and industrial, 52.4%, and for agriculture, 35.3% are within three and one half percentage points of the 1976 BOAE data. Women make up 97.1% of the enrollment in traditionally female trade and industrial occupations, according to the OCR data, which is higher than either the 1972 or the 1976 BOAE figures; women also make up 47.9% of the enrollment in traditionally female technical occupations according to the OCR data.

- Distributive education enrollment is 40.6% female, according to OCR, a figure essentially identical to the BOAE 1976 finding. The figures for traditionally male, female, and mixed occupations within this area are, respectively, 44.0%, 75.0% and 40.4%. The last two are within five percentage points of the corresponding BOAE 1976 data, while the first is much higher than the 13.8% reported by BOAE for that year (1972 BOAE data showed 22.0% women in this category).

In sum, there are no striking inconsistencies between the OCR and BOAE data with respect to dominance of any occupational area by persons of one sex or the other. Figures C.1 and C.2* show the relationship between the data from

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*Comparing data from different studies is always a somewhat dubious enterprise, as variations observed may as well reflect differences in methods of sampling and measurement as differences in that being examined. On the other hand, if a trend is pervasive, and truly characteristic, it should be robust enough to appear when any one of several reasonable assessment methods is used. In any event, we will present the data and discuss what they appear to show.

Figure C.1

PERCENTAGE OF WOMEN IN EACH OCCUPATIONAL AREA

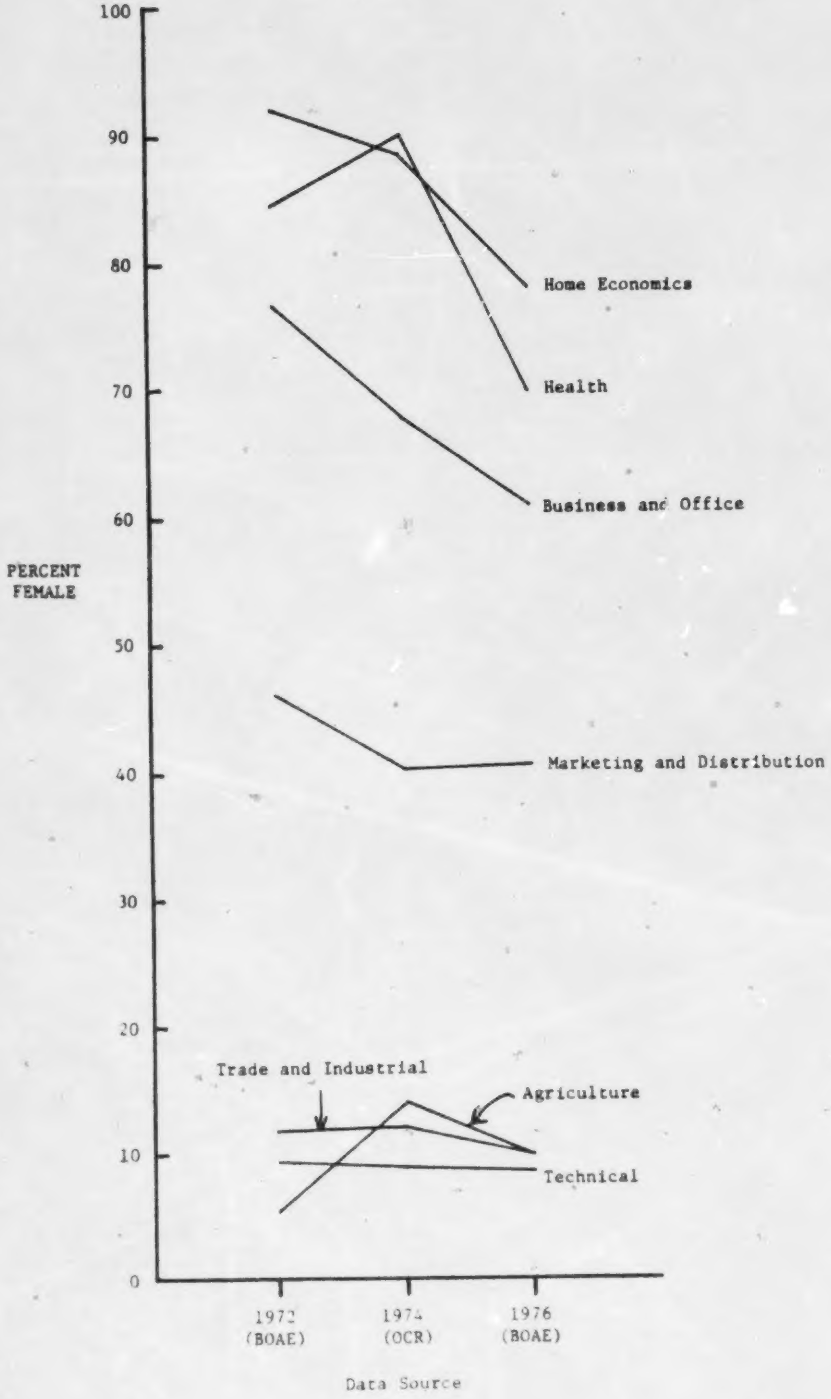
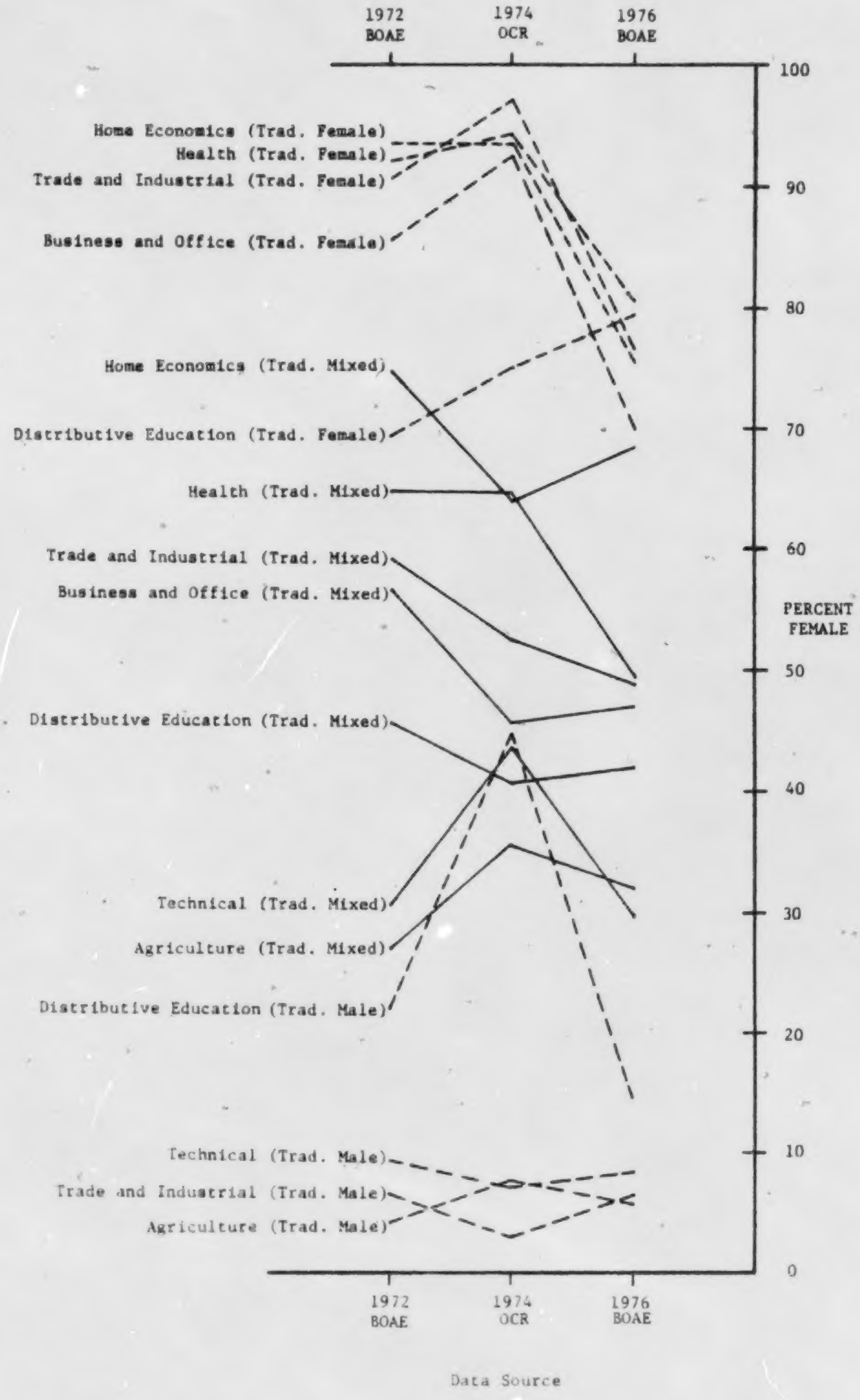


Figure C.2

PERCENTAGE OF WOMEN IN TRADITIONALLY MALE, FEMALE, AND MIXED OCCUPATIONAL AREAS



these two sources. A trend appears in Figure C.2. Female enrollment in traditionally female occupations appears to be converging at between 68% and 80% of the total, while in traditionally mixed areas it is converging to between 30% and 50% of the total. No noteworthy changes are to be seen in the traditionally male occupations, however, with these occupations generally remaining less than 10% female.

OCR teacher data. Table C.3 shows the makeup of teaching staff as revealed by the OCR study. Over 90% of the teachers in traditionally male occupational areas are men. Men also make up over 70% of the teaching staff in marketing and distribution--a traditionally mixed occupational area. Over 80% of the teachers in home economics and health are women, as are about 55% of the business and office teachers. Thus, men are much more commonly found teaching in traditionally female occupational areas than are women in traditionally male areas.

Census data. Table C.4 shows the racial makeup of the United States according to the 1970 census. While the racial categories used in the census were not the same as those used in the present study, certain of the categories are sufficiently similar to provide useful comparison data. Specifically, the estimates of 'Black', 'American Indian or Native Alaskan', and 'Asian or Pacific Islander' are probably quite close to what would have been obtained had our categories been used.* This table will be referred to frequently to compare the representation of various minority groups in vocational education with their representation in the population. For example, comparison of this table with Tables C.2 and C.3 reveals that, while Blacks are commonly represented among students in excess of their

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*The 1970 census question on race/ethnicity provided the following options: White, Negro or Black, American Indian, Japanese, Chinese, Filipino, Hawaiian, Korean, and Other, except in Alaska, where Aleut and Eskimo were substituted for Hawaiian and Korean. The most serious problem for comparison with the categories used in the present study is the absence of a 'Hispanic' category. While many Hispanics may have indicated 'Other', the greater number probably specified either 'White', or, less commonly, 'Black'. Thus, the totals for 'Blacks' and 'Whites' are probably somewhat inflated, although the greater overestimate would almost certainly be in the latter category. The total for 'Asians or Pacific Islanders' is probably something of an underestimate, as the total includes only Chinese, Japanese, and Filipinos, but not persons whose ancestors came from other Pacific Islands, or from portions of continental Asia other than China.

Table C.4

RACIAL MAKEUP OF THE UNITED STATES - 1970 CENSUS[a]

	TOTAL	WHITE	BLACK[b]	AMERICAN INDIAN[c]	ASIAN AND PACIFIC ISLANDER[d]	OTHER
United States	203,211,926	87.5%	11.5%	.4%	.7%	.3%
REGIONS						
North East	49,040,703	90.4%	8.9%	.1%	.3%	.3%
North Central	56,571,663	91.3%	8.1%	.3%	.2%	.1%
South	62,795,367	80.3%	19.1%	.3%	.2%	.1%
West	34,804,193	90.2%	4.9%	.1%	2.8%	1.0%

[a] Source: Census of Population: 1970. Volume I, Characteristics of the Population

[b] "Negro" in the census report.

[c] Includes those who indicated "American Indian" or who specified a specific Tribal affiliation.

[d] Includes Japanese, Chinese, and Filipinos.

proportion in the population, their representation among teachers is generally less than in the population.

As explained in the footnote, the census data provide no good estimate of the Hispanic population. For purposes of comparisons such as those described above, a figure of 5.1% will be used. This is based on data contained in the 1976 Statistical Abstract of the United States (U.S. Department of Commerce, 1976).

THE NEW DATA: ENROLLMENT PATTERNS IN VOCATIONAL EDUCATION IN 1978

Under this topic, we will present information about enrollment based on the findings of the present study. In so doing, we will discuss not only the enrollment figures *per se*, but also some of the characteristics of traditional and nontraditional students and how they came to be enrolled in their present programs.

Enrollment Figures

Tables C.5 to C.7 present enrollment estimates based on the sample of students interviewed in the present study.* Figures C.3 and C.4 put these data in perspective by showing them in comparison with the BOAE and OCR data. The following emerge from a review of these tables and figures:

- Women continue to predominate in each of the traditionally female occupational areas, with over 75% of the total in each of the three. Moreover, they constitute over 80% of the enrollment in traditionally female occupations within each area.

- Men continue to predominate in each of the traditionally male occupational areas, with over 75% of the enrollment in each of the three. Moreover, they constitute over 85% of the enrollment in traditionally male occupations within each area.

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*Procedures for arriving at these estimates on the basis of the sample are discussed in Appendix C.1. In outline, estimates were developed by assigning each student a "weight" based on the proportion of the population that student represented. For example, a student selected from a school with a large enrollment would "represent" more students than a student from a small school and would, therefore, have a larger weight, other factors being equal.

Table C.5

ESTIMATED ENROLLMENT IN EACH OCCUPATIONAL AREA BY RACE AND SEX

	Total by Sex				Total by Race					Total by Race and Sex									
	Men		Women																
	N	%	N	%	White %	Black %	Hispanic %	Asian/ Pacific Islander %	American Indian/ Native Alaskan %	White Men %	Black Men %	Hispanic Men %	Asian/ Pacific Islander Men %	American Indian/ Native Alaskan Men %	White Women %	Black Women %	Hispanic Women %	Asian/ Pacific Islander Women %	American Indian/ Native Alaskan Women %
Overall																			
Trad. Male	1,322,998	92.2	111,912	7.8	80.1	13.8	4.4	.9	.7	73.6	12.8	4.2	.8	.7	6.5	1.0	.2	.05	.02
Trad. Female	147,671	10.9	1,202,826	89.1	68.9	20.3	7.8	1.9	1.2	7.3	2.5	.8	.2	.3	61.6	17.8	7.0	1.8	.9
Trad. Mixed	364,824	43.1	482,487	56.9	76.9	12.7	6.2	3.5	.7	31.9	5.7	4.4	1.1	.04	45.0	7.0	1.9	2.4	.7
Health																			
Trad. Female	20,782	7.8	245,060	92.2	87.4	8.8	3.5	.1	.1	7.3	.2	.3	0.0	0.0	80.1	8.7	3.2	.1	.1
Trad. Mixed	7,870	15.6	42,523	84.4	90.2	8.8	1.0	0.0	0.0	13.8	1.8	0.0	0.0	0.0	76.3	7.0	1.0	0.0	0.0
Home Economics																			
Trad. Female	77,470	16.4	395,808	83.6	67.0	23.4	6.2	2.7	2.7	9.9	4.2	.1	.5	.3	57.1	19.3	2.7	2.3	2.4
Trad. Mixed	5,071	22.5	17,433	77.5	63.9	31.4	.6	4.1	0.0	8.1	12.0	.6	1.8	0.0	56.1	19.5	0.0	1.8	0.0
Business & Office																			
Trad. Female	47,486	8.7	498,681	91.3	63.6	19.7	13.8	2.4	.5	5.5	2.3	.4	.05	.4	58.1	17.4	13.6	2.3	.06
Trad. Mixed	192,265	41.1	275,577	58.9	74.9	10.5	9.6	4.7	.3	28.3	5.2	7.0	.6	.01	46.6	5.4	2.6	4.1	.2
Marketing & Distribution																			
Trad. Male	1,290	100.0	0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Mixed	114,560	58.3	82,072	41.7	73.5	20.9	3.2	.5	2.0	47.4	8.9	1.7	.1	.1	26.1	12.0	1.5	.4	1.8
Technical																			
Trad. Male	250,701	88.2	33,609	11.8	88.2	10.9	.6	.2	0.0	76.7	10.7	.6	.2	0.0	11.5	.2	.004	.08	0.0
Trade & Industrial																			
Trad. Male	944,109	93.9	61,377	6.1	77.1	14.8	6.0	1.1	1.0	72.6	13.6	5.6	1.0	1.0	4.5	1.3	.2	.04	.02
Trad. Female	1,934	3.0	63,112	97.0	51.1	48.5	.2	.3	0.0	2.7	.3	0.0	0.0	0.0	48.5	48.3	.2	.3	0.0
Trad. Mixed	23,036	36.0	40,991	64.0	85.0	4.8	0.0	8.8	1.4	23.7	3.5	0.0	8.8	0.0	61.3	1.3	0.0	0.0	1.4
Agriculture																			
Trad. Male	126,903	88.2	16,928	11.8	84.8	12.8	1.1	.7	.6	74.1	11.9	.9	.6	.6	10.7	.8	.2	.06	0.0
Trad. Mixed	21,150	49.7	21,363	50.3	90.7	6.1	3.1	0.0	0.0	46.4	.8	2.5	0.0	0.0	44.3	5.3	.6	0.0	0.0

Data presented in this and all subsequent tables and figures were, unless a note to the con:rary is made, collected as part of the present study.

Table C.6

ESTIMATES OF ENROLLMENTS IN EACH OCCUPATIONAL AREA BY REGION OF THE COUNTRY

	Total				North East		North Central		South		West	
	Men		Women		Men	Women	Men	Women	Men	Women	Men	Women
	N	%	N	%	%	%	%	%	%	%	%	%
Overall												
Traditionally Male	1,323,010	92.2	111,914	7.8	93.7	6.3	94.5	5.5	88.8	11.2	93.2	6.8
Traditionally Female	147,674	10.9	1,202,839	89.1	8.2	91.8	10.3	89.7	10.8	89.2	13.2	86.8
Traditionally Mixed	363,939	43.1	479,955	56.9	36.1	63.9	42.7	57.3	39.9	60.1	50.0	50.0
Health												
Traditionally Female	20,738	7.8	245,061	92.2	17.4	82.6	1.0	99.0	4.9	95.1	13.2	86.8
Traditionally Mixed	7,871	15.6	42,523	84.4	8.2	91.8	2.0	98.0	31.9	68.1	9.6	90.4
Home Economics												
Traditionally Female	77,471	16.4	395,811	83.6	4.8	95.2	14.3	85.7	17.7	82.3	21.7	78.3
Traditionally Mixed	5,071	22.5	17,433	77.5	13.0	87.0	24.7	75.3	32.9	67.1	.5	99.5
Business & Office												
Traditionally Female	47,486	8.7	498,688	91.3	8.2	91.8	9.8	90.2	10.7	89.3	6.6	93.4
Traditionally Mixed	192,247	41.1	275,578	58.9	31.8	68.2	45.3	54.7	30.3	69.7	49.6	50.4
Marketing & Distribution												
Traditionally Male	1,290	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Traditionally Mixed	114,563	58.3	82,070	41.7	48.5	51.5	48.9	51.1	61.6	38.4	75.1	24.9
Technical												
Traditionally Male	250,702	88.2	33,609	11.8	80.7	19.3	98.0	2.0	88.9	11.1	85.7	14.3
Trade & Industrial												
Traditionally Male	994,115	93.9	61,376	6.1	96.0	4.0	93.6	6.4	90.5	9.5	96.5	3.5
Traditionally Female	1,934	3.0	63,279	97.0	0.0	100.0	8.1	91.9	1.7	98.3	0.0	0.0
Traditionally Mixed	23,037	36.0	40,989	64.0	98.1	1.9	31.8	68.2	22.3	77.7	41.0	59.0
Agriculture												
Traditionally Male	126,903	88.2	16,929	11.8	72.6	27.4	95.9	4.1	80.5	19.5	97.8	2.2
Traditionally Mixed	21,150	49.8	21,362	50.2	5.4	94.6	81.7	18.3	42.2	57.8	49.4	50.6

Table C.7

ESTIMATED ENROLLMENT IN EACH OCCUPATIONAL AREA BY TYPE OF SCHOOL

	Total				Vocational High School		Technical Institute		Vocational Center		Subtotal				Junior College		Subtotal				Comprehensive High School	
	Men		Women		Men	Women	Men	Women	Men	Women	Men		Women		Men	Women	Men		Women		Men	Women
	N	%	N	%	%	%	%	%	%	%	N	%	N	%	%	%	N	%	N	%	%	%
Overall																						
Traditionally Male	1,323,008	92.2	111,914	7.8	97.9	2.1	96.8	3.2	92.2	7.8	366,164	94.0	23,468	6.0	87.4	12.6	654,405	90.9	65,177	9.1	93.5	6.5
Traditionally Female	147,678	10.9	1,202,831	89.1	15.3	84.7	8.5	91.5	5.4	94.6	15,598	7.0	206,046	93.0	9.4	90.6	41,373	8.3	454,710	91.7	12.4	87.6
Traditionally Mixed	363,937	43.1	479,954	56.9	48.5	51.5	47.3	52.7	18.7	81.3	56,781	36.0	100,735	64.0	60.8	39.2	187,700	50.3	185,317	49.7	37.4	62.6
Health																						
Traditionally Female	20,783	7.8	245,061	92.2	7.1	92.9	1.5	98.5	4.5	95.5	1,633	2.8	56,378	97.2	10.2	89.8	19,504	8.4	213,973	91.6	4.0	96.0
Traditionally Mixed	7,872	15.6	42,522	84.4	0.0	100.0	1.1	98.9	8.2	91.8	718	4.8	14,313	95.2	41.2	58.8	7,378	23.7	23,799	76.3	2.6	97.4
																	26,900	10.2	237,800	89.8		
Home Economics																						
Traditionally Female	77,472	16.4	395,807	83.6	24.9	75.1	3.1	96.9	26.3	73.7	4,982	14.9	28,508	85.1	26.0	74.0	10,523	19.2	44,300	80.8	16.0	84.0
Traditionally Mixed	5,071	22.5	17,432	77.5	53.2	46.8	100.0	0.0	.9	99.1	217	8.3	2,413	91.7	18.9	81.1	485	12.0	3,561	88.8	24.8	75.2
																	11,000	18.7	47,900	81.3		
Business & Office																						
Traditionally Female	47,488	8.7	498,684	91.3	24.9	75.1	22.4	77.6	.1	99.9	7,152	9.3	69,455	90.7	2.9	97.1	9,411	6.1	144,526	93.9	9.7	90.3
Traditionally Mixed	192,248	41.1	275,576	58.9	52.7	47.3	51.6	48.4	20.8	79.2	36,263	42.6	48,833	57.4	54.8	45.2	113,373	50.2	112,468	49.8	32.6	67.4
																	122,784	32.3	256,994	67.7		
Marketing & Distribution																						
Traditionally Male	1,290	100.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0	0.0	100.0	0.0	1,290	100.0	0	0.0	0.0	0.0
Traditionally Mixed	114,559	58.3	82,072	41.7	0.0	100.0	100.0	0.0	22.2	77.8	12,053	39.1	18,757	60.9	86.3	13.7	56,608	68.7	25,837	31.3	50.8	49.2
																	57,898	69.1	25,837	30.9		
Technical																						
Traditionally Male	250,703	88.2	33,609	11.8	96.4	3.6	97.4	2.6	90.0	10.0	63,921	95.4	3,051	4.6	77.5	22.5	166,940	83.5	33,031	16.5	99.3	.7
Trade & Industrial																						
Traditionally Male	944,113	93.9	61,375	6.1	98.2	1.8	96.2	3.8	93.1	6.9	300,305	94.3	18,257	5.7	93.9	6.1	472,059	94.1	29,467	5.9	93.7	6.3
Traditionally Female	1,935	3.0	63,279	97.0	0.0	0.0	3.4	96.6	3.4	96.6	1,831	3.4	51,705	96.6	33.5	66.5	1,935	3.6	51,911	96.4	0.0	100.0
Traditionally Mixed	23,037	36.0	40,991	64.0	100.0	0.0	0.0	100.0	34.9	65.1	719	4.7	14,564	95.3	61.4	38.6	3,045	16.0	16,029	84.0	44.5	55.5
																	477,039	83.0	97,407	17.0		
Agriculture																						
Traditionally Male	126,902	88.2	16,930	11.8	63.7	36.3	0.0	0.0	46.0	54.0	1,938	47.3	2,160	52.7	95.9	4.1	14,116	84.0	2,679	16.0	88.8	11.2
Traditionally Mixed	21,150	49.8	21,361	50.2	0.0	100.0	100.0	0.0	.9	99.1	6,811	78.6	1,855	21.4	0.0	100.0	6,811	65.3	3,623	34.7	44.7	55.3
																	20,927	76.9	6,302	23.1		

- Men are in the majority in distributive education, making up 58.5% of the enrollment.

- Except in marketing and distribution, women are in the majority in traditionally mixed occupations in each occupational area. Their greatest majorities are in health (84.4%) and home economics (77.5%)

- Some regional variations occur in these data, but in no instance is there a striking deviation from traditional dominance in traditionally male or female occupations overall or within any occupational area. The greatest disparity is in traditionally male occupations in agriculture, where the percentage of men enrolled ranges from a low of 72.6% in the North East to 97.8% in the West. In only one other instance--home economics in the West--does the percentage dip below 80 for the traditionally predominant sex.

- Some dramatic variations occur within occupational areas across various types of schools. The greatest is in traditionally male occupations in agriculture, where male enrollment varies from a high of 95.9% in junior and community colleges, to a low of 46.0% in vocational centers. The three next largest variations are in traditionally female occupations, as follows: in home economics, from 96.9% women in technical institutes to 73.7% women in vocational centers; in business and office, from 99.9% women in vocational centers, to 75.1% women in vocational high schools; and in trade and industrial, from 96.6% women in vocational centers to 66.5% women in junior/community colleges. Such variations buck the trend, however: in each type of school, over 80% of those studying traditionally male occupations are men, while over 80% of those studying traditionally female occupations are women. A review of traditionally male and female occupations within each occupational area and type of school reveals that, in 22 of 34 instances, the traditional sex makes up over 90% of the enrollment; in three more instances, the figure is between 80% and 90%, and in six more it is above 70%.

- A review of Figures C.3 and C.4 does not show a continuation of the trends described in the discussion of the BOAE and OCR data.* First, the apparent downturn in the percentage of women in business, health, and home economics reversed, and the estimates of enrollment derived from the

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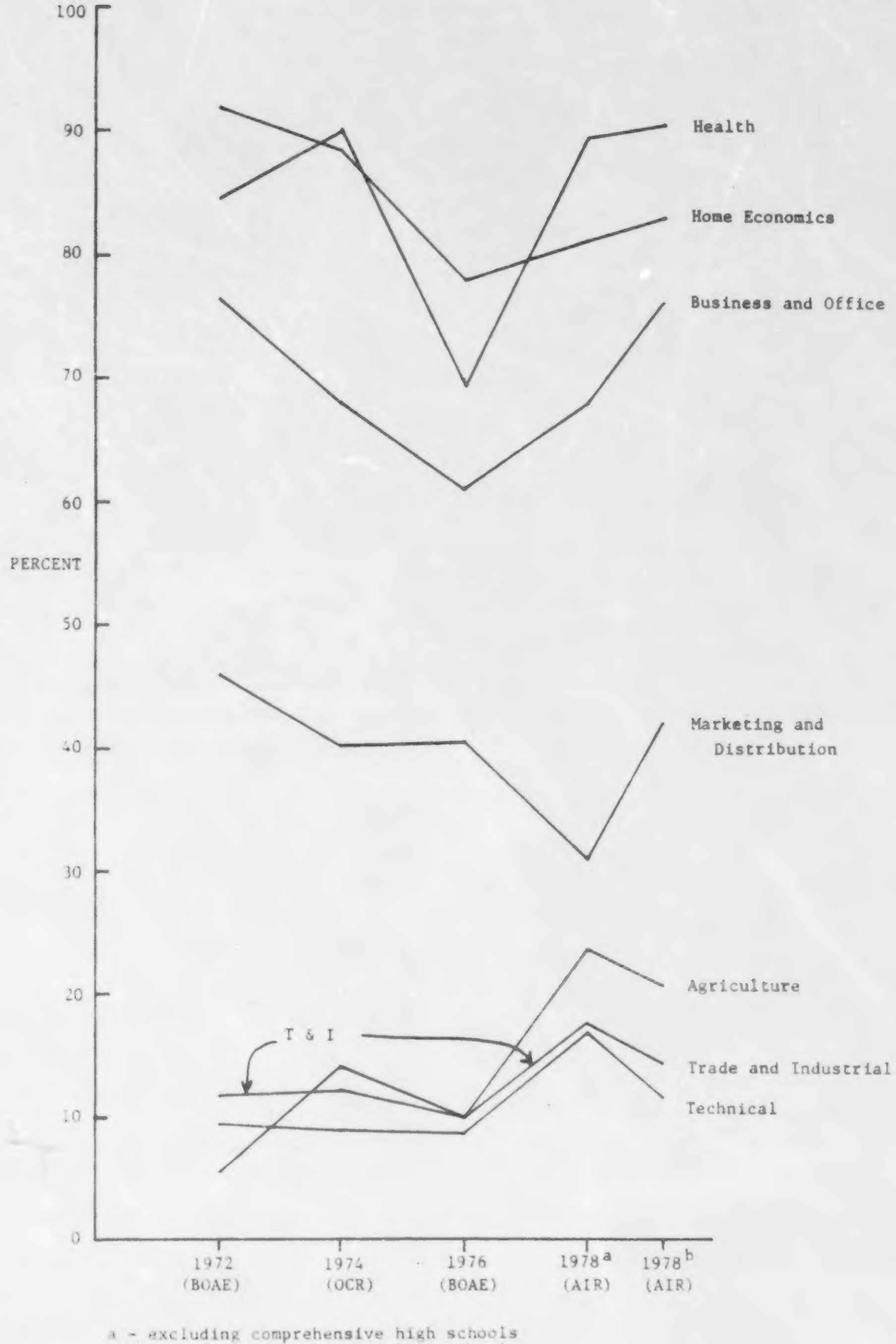
*Two data points are presented, one based on all schools visited, the other excluding comprehensive high schools. The exclusion of comprehensive high schools leaves a sample including only those kinds of schools surveyed by the Office of Civil Rights.

Figure C.3

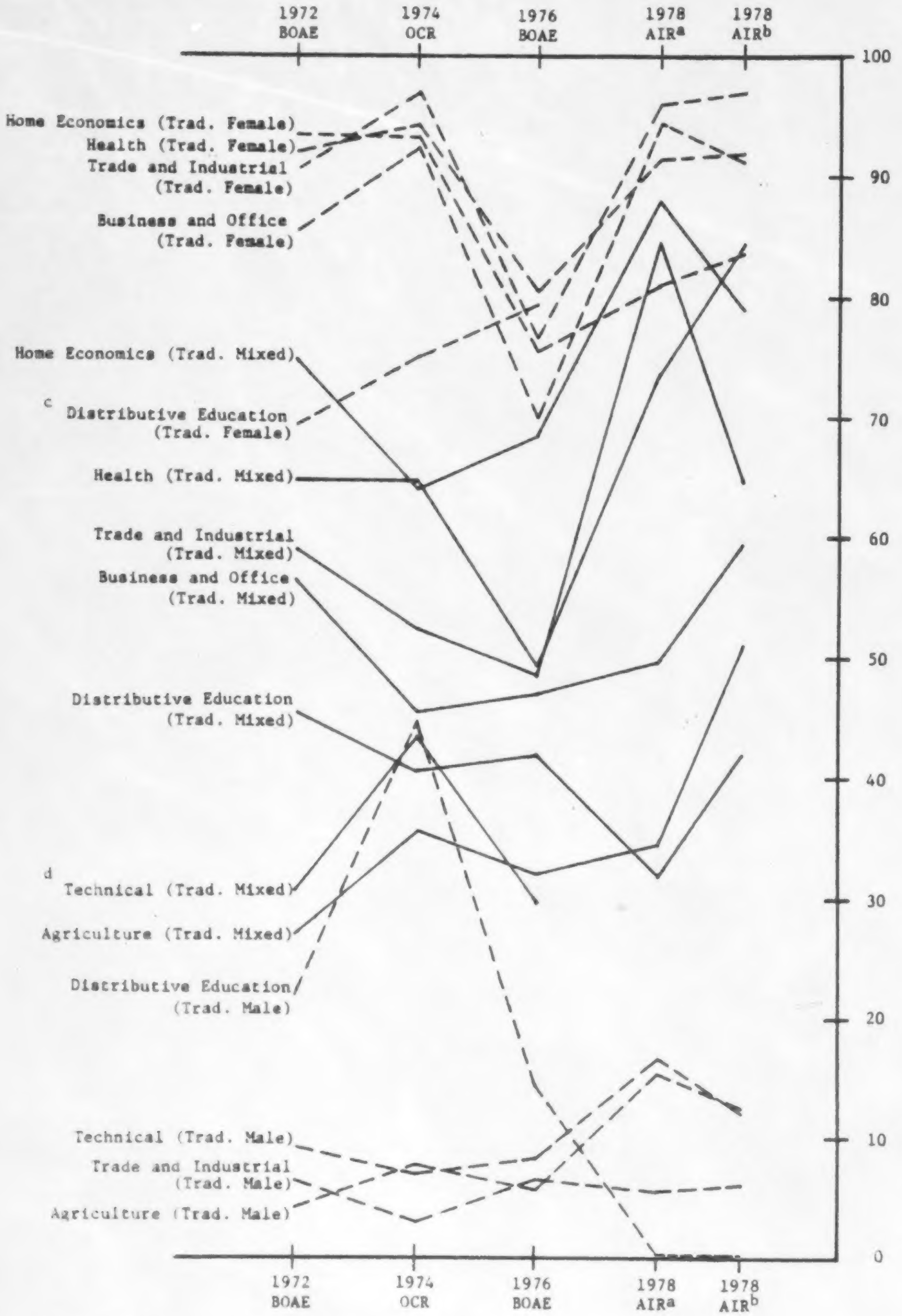
PERCENTAGE OF WOMEN IN EACH OCCUPATIONAL AREA, INCLUDING VEES DATA



a - excluding comprehensive high schools
b - including comprehensive high schools

Figure C.4

PERCENTAGE OF WOMEN IN TRADITIONALLY MALE, FEMALE, AND MIXED OCCUPATIONAL AREAS, INCLUDING VEES DATA



a - excluding comprehensive high schools
b - including comprehensive high schools
c - no students in traditionally female distributive education courses were identified in this study
d - no students in traditionally mixed technical occupations were interviewed in this study

sample approximately match the 1972 BOAE data when all schools are included, and the OCR data when comprehensive high schools are excluded. Second, there is a slight upturn in the percentage of women in agriculture, trade and industrial and technical-- to about 17% in trade and industrial and in technical, and to about 25% in agriculture when all schools are included. Each decreases a few percentage points when comprehensive high schools are excluded; for technical occupations this essentially wipes out the gain relative to the 1976 BOAE data.

An examination of traditionally male, female and mixed occupations within each of the areas (Figure C.4) generally shows greater percentages of women in programs training students for traditionally female occupations than did the 1976 BOAE data. Women, according to these data have increased their participation in traditionally male programs in agriculture and technical occupations since 1976, but their participation in traditionally male programs in trade and industrial has remained steady.

- Overall, Blacks make up about 16% of the vocational enrollment, compared with their population percentage of 11.1%. The corresponding figures for American Indians and Native Alaskans are .9% and .4%; for Asians and Pacific Islanders, the figures are .7% and 1.9%. Hispanics make up 6.1% of the vocational school enrollment, which is higher than their 5.1% representation in the population as a whole. Taken together, minority students make up about 25% of the overall vocational enrollment. They are not, however, proportionately distributed among programs. Minority students make up less than 20% of the students in the occupational areas of health, technical and agriculture. They also make up less than 20% of the enrollment in traditionally mixed trade and industrial occupations and in traditionally male distributive education occupations. By contrast, minority students constitute more than 30% of the enrollment in home economics, and in traditionally female occupations in the business and office, and trade and industrial occupational areas.

In sum, these data show somewhat greater female enrollment in traditionally male occupations than do the OCR or BOAE data (approximately a 3% increase in technical areas and an 8% increase in agriculture). However, the proportion of men in traditionally female areas is less than shown by the other sets of data. (The exception being approximately a 10% increase in home economics.) In spite of some anomalies for a few types of schools in some occupational areas, these data reinforce previously existing data in showing overwhelmingly traditional enrollment patterns.

Characteristics of Traditional and Nontraditional Students

Tables C.9 and C.10, along with Figures C.5 to C.7, present data comparing traditional and nontraditional students on the following factors: age, fathers' and mothers' occupational level (as an index of socioeconomic status), plans after leaving school, marriage plans, and occupational preferences. These tables report unweighted data based on information given by students in the sample.

Student age. As shown in Table C.8, nontraditional students are slightly older than traditional students when data are combined across all types of schools. This difference of about .7 years is significant at the .02 level; men differ by about a year, and women by about half a year, with nontraditional students being older in either case. There is a smattering of differences within various types of schools that are significant at the .10* level or beyond. Except in vocational centers, where men studying nontraditional occupations are about two years older than those studying traditional occupations, the data underlying each of these comparisons differ by less than one year.

Thus, even though there is some evidence of age differences between traditional and nontraditional students, these differences do not appear to be large. This is true across schools for men, for women, and for traditional versus nontraditional students overall. It is also true within each type of school. With the single exception noted, differences reliable at the .10 level reflect age differences of less than one year.

Occupational level of parents. Parental occupations were used as indicators of socioeconomic status. A score of from 1 to 5 was given for each parent employed outside of the home. A detailed description of the

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* In the balance of this section, the .10 level will frequently be used, but only as a criterion to decide which findings to discuss in some detail. For major analyses, data for outcomes not significant at this level will also be presented; for more detailed analyses, the number of tests from which the significant tests were taken will also be specified. Moreover, some tests are obviously confounded. Proper care caution should be taken in reviewing these analyses.

Table C.8

AGE OF TRADITIONAL AND NONTRADITIONAL STUDENTS

TYPE OF SCHOOL		Overall				Men				Women			
		Traditional	Nontraditional	t	p	Traditional	Nontraditional	t	p	Traditional	Nontraditional	t	p
All Schools	N	1818	463			995	209			823	254		
	$\bar{X}$	18.15	18.87	2.63	<.01	18.05	19.06	2.81	<.01	18.28	18.72	1.06	>.20
	S.D.	5.08	5.88			4.56	5.42			5.65	6.23		
Comprehensive High School	N	1160	264			603	136			557	128		
	$\bar{X}$	16.61	16.52	1.09	>.20	16.64	16.68	0.34	>.20	16.58	16.35	1.95	>.05
	S.D.	1.22	1.19			1.23	1.19			1.21	1.17		
Vocational High School	N	106	25			76	7			30	18		
	$\bar{X}$	16.76	16.16	1.79	>.05	16.83	16.86	0.05	>.20	16.60	15.89	2.04	<.05
	S.D.	1.57	1.18			1.71	0.90			1.16	1.18		
Vocational Center	N	316	82			189	24			127	58		
	$\bar{X}$	17.99	18.76	1.23	>.20	17.39	19.54	3.39	<.01	18.87	18.43	0.42	>.20
	S.D.	4.82	5.94			2.37	5.70			6.95	6.05		
Technical Institute	N	63	14			25	8			38	6		
	$\bar{X}$	25.84	24.43	0.54	>.50	27.12	23.75	0.95	>.50	25.00	25.33	0.08	>.50
	S.D.	9.33	6.03			9.19	7.13			9.45	4.68		
Junior/ Community College	N	173	78			102	34			71	44		
	$\bar{X}$	26.86	26.83	0.03	>.50	26.26	27.59	0.90	>.50	27.72	26.25	0.81	>.50
	S.D.	8.51	8.21			7.81	6.40			9.42	9.41		

categories is given in Appendix C.5. Briefly, the levels may be characterized as follows:

- Level 1: laborers and unskilled workers.
- Level 2: semi-skilled workers.
- Level 3: skilled workers and lower-level supervisors.
- Level 4: proprietors, sales personnel, managers, technicians, and teachers.
- Level 5: officials and professionals.

Table C.9 shows average socioeconomic status, so defined, for traditional and nontraditional students overall, and for each sex separately. There are no differences between traditional and nontraditional students in fathers' socioeconomic status in any of these comparisons for any type of school or when all schools are combined.

A few differences appear in mothers' socioeconomic status which are significant at the .10 level; in each case the mothers' of nontraditional students have the higher status. Differences appear overall and for male students when all types of school are combined, as well as within technical institutes. (Due to the obvious confounding, these differences are probably all largely due to men enrolled in technical institutes, or one significant finding at the .10 level among ten tests.)

Level of participation. Figure C.5 shows the number of hours of vocational and other training taken by traditional and nontraditional students. The figures for each kind of training are all within ½ hour per day when data from all types of schools are combined. Comparisons significant at the .10 level or beyond between traditional and nontraditional students are indicated in Figure C.5. Differences significant at the .10 level in amount of vocational training are found primarily in comprehensive high schools where traditional students typically are enrolled for more hours than are nontraditional students. The greatest difference within comprehensive high schools is between men and women studying traditionally male occupations--men receive, on the average, .65 hours more training a day.

Table C.9

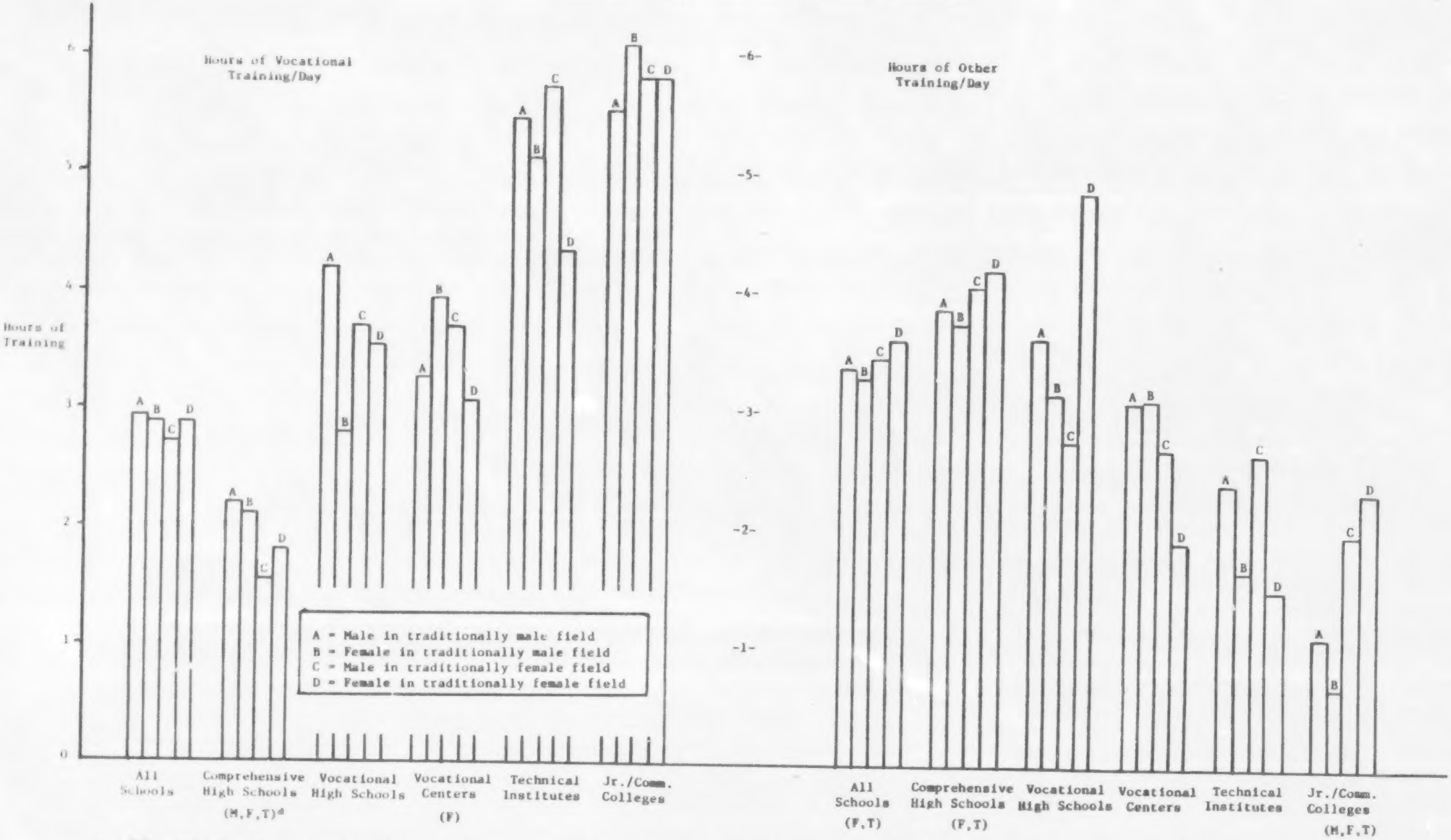
SOCIOECONOMIC STATUS OF TRADITIONAL AND NONTRADITIONAL STUDENTS

FATHER SOCIOECONOMIC STATUS		Overall					Men					Women				
		N	$\bar{X}$	S.D.	t	p	N	$\bar{X}$	S.D.	t	p	N	$\bar{X}$	S.D.	t	p
All Schools	Traditional	1454	3.09	1.14	1.04	>.2	810	3.10	1.12	0.10	>.5	644	3.07	1.16	1.47	>.1
	Nontraditional	352	3.16	1.12			163	3.09	1.12			189	3.21	1.12		
Comprehensive High School	Traditional	925	3.13	1.14	0.80	>.2	495	3.15	1.12	0.08	>.5	430	3.10	1.16	1.32	>.1
	Nontraditional	205	3.20	1.07			108	3.14	1.05			97	3.27	1.09		
Vocational High School	Traditional	77	2.77	0.99	1.30	>.2	54	2.81	1.03	0.81	>.2	23	2.65	0.88	1.23	>.2
	Nontraditional	12	3.17	1.03			5	3.20	1.10			7	3.14	1.07		
Vocational Center	Traditional	264	2.89	0.13	0.72	>.2	162	2.84	1.12	0.18	>.5	102	2.96	1.15	0.52	>.5
	Nontraditioral	69	2.84	1.11			19	2.79	1.23			50	2.86	1.07		
Technical Institute	Traditional	46	2.96	1.17	1.04	>.2	17	3.29	1.05	0.22	>.5	29	2.76	1.21	1.50	>.1
	Nontraditional	10	3.40	1.43			6	3.17	1.47			4	3.75	1.50		
Junior/ Community College	Traditional	142	3.44	1.09	0.56	>.5	82	3.48	1.07	1.56	>.1	60	3.40	1.12	0.60	>.5
	Nontraditional	56	3.34	1.23			25	3.08	1.29			31	3.55	1.15		

MOTHER SOCIOECONOMIC STATUS		Overall					Men					Women				
		N	$\bar{X}$	S.D.	t	p	N	$\bar{X}$	S.D.	t	p	N	$\bar{X}$	S.D.	t	p
All Schools	Traditional	888	2.77	1.10	1.73	<.1	471	2.78	1.11	2.12	<.05	417	2.77	1.10	0.35	>.5
	Nontraditional	224	2.91	1.02			104	3.03	0.97			120	2.81	1.06		
Comprehensive High School	Traditional	598	2.79	1.12	1.28	>.2	295	2.82	1.12	1.04	>.2	303	2.75	1.13	0.90	>.2
	Nontraditional	146	2.92	1.00			72	2.97	0.93			74	2.88	1.07		
Vocational High School	Traditional	49	2.73	1.04	0.49	>.5	35	2.80	1.11	0.08	>.2	14	2.57	0.85	0.84	>.2
	Nontraditional	6	2.50	1.38			4	2.75	1.50			2	2.00	1.41		
Vocational Center	Traditional	149	2.59	1.11	0.24	>.5	91	2.53	1.15	1.29	>.1	58	2.69	1.05	0.81	>.2
	Nontraditional	36	2.64	1.15			11	3.00	1.10			25	2.48	1.16		
Technical Institute	Traditional	22	2.77	0.87	2.46	<.05	8	2.75	0.71	1.99	<.1	14	2.79	0.98	1.48	>.1
	Nontraditional	6	3.67	0.52			3	3.67	0.58			3	3.67	0.58		
Junior/ Community College	Traditional	70	3.09	0.94	0.05	>.5	42	3.00	0.96	0.97	>.2	28	3.21	0.92	0.99	>.2
	Nontraditional	30	3.10	0.88			14	3.29	0.99			16	2.94	0.77		

Figure C.5

TRAINING RECEIVED BY TRADITIONAL AND NONTRADITIONAL STUDENTS



a. "M" indicates that males in traditional and nontraditional classes differ reliably at the .10 level.
"F" indicates that females in traditional and nontraditional classes differ reliably at the .10 level.
"T" indicates that traditional and nontraditional students in general differ reliably at the .10 level.

Occupational preferences and plans for the future. Figures C.6 and C.7 show, respectively, the plans for the future and the occupational preferences of traditional and nontraditional students of each sex. Tables C.10 and C.11 provide a more detailed breakdown of the data. The following emerge from an examination of these figures and tables:

- Overall, as shown in Figure C.6, traditional students are more likely to plan to enter the occupation for which they are training than are nontraditional students. Similarly, nontraditional students are less likely to anticipate seeking further vocational training* than are traditional students of the same sex, and women in traditionally male programs are less likely to plan for more training than are men in traditionally male programs. On the other hand, nontraditional students are more likely than traditional students to plan to enroll in an academic college program.

  A more complicated picture emerges when one looks within occupational areas, however. Within the "hardcore" male areas of agriculture and trade and industrial, a greater percentage of men than women plan to enter traditionally male occupations for which they are training. The men lead by about 10% in either area. The men in traditionally male trade and industrial occupations also lead their female fellow students by about 10% in indicating that they will seek further vocational training; in traditionally male agricultural occupations, however, the women lead the men by around 6%. In each occupational area, women are more likely then men to indicate that they will take an academic college program, or that they will take any job they can get. Women are more likely than men to indicate that they will enter traditionally male technical occupations (52% versus 37%). These same women trail their male counterparts by about 8% in plans to seek further vocational training, but lead them by over 30% in plans to seek academic postsecondary education.

  Men studying traditionally female occupations are, in most occupational areas, more likely than their female counterparts to plan to enter the field for which they are training; differences are about 2% in home economics, 10% in health, and 34% in trade and industrial. Only in business and office is the situation reversed; there 41% of the women plan to enter the occupation for which they are training, as against about 9% of the men. (The variation in the number of students upon which the various percentages are

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*This may or may not be in the same occupation in which students were enrolled at the time of the interview. The data on student choice suggests that very often it probably is not, especially for nontraditional students.

Figure C.6

PLANS FOR THE FUTURE

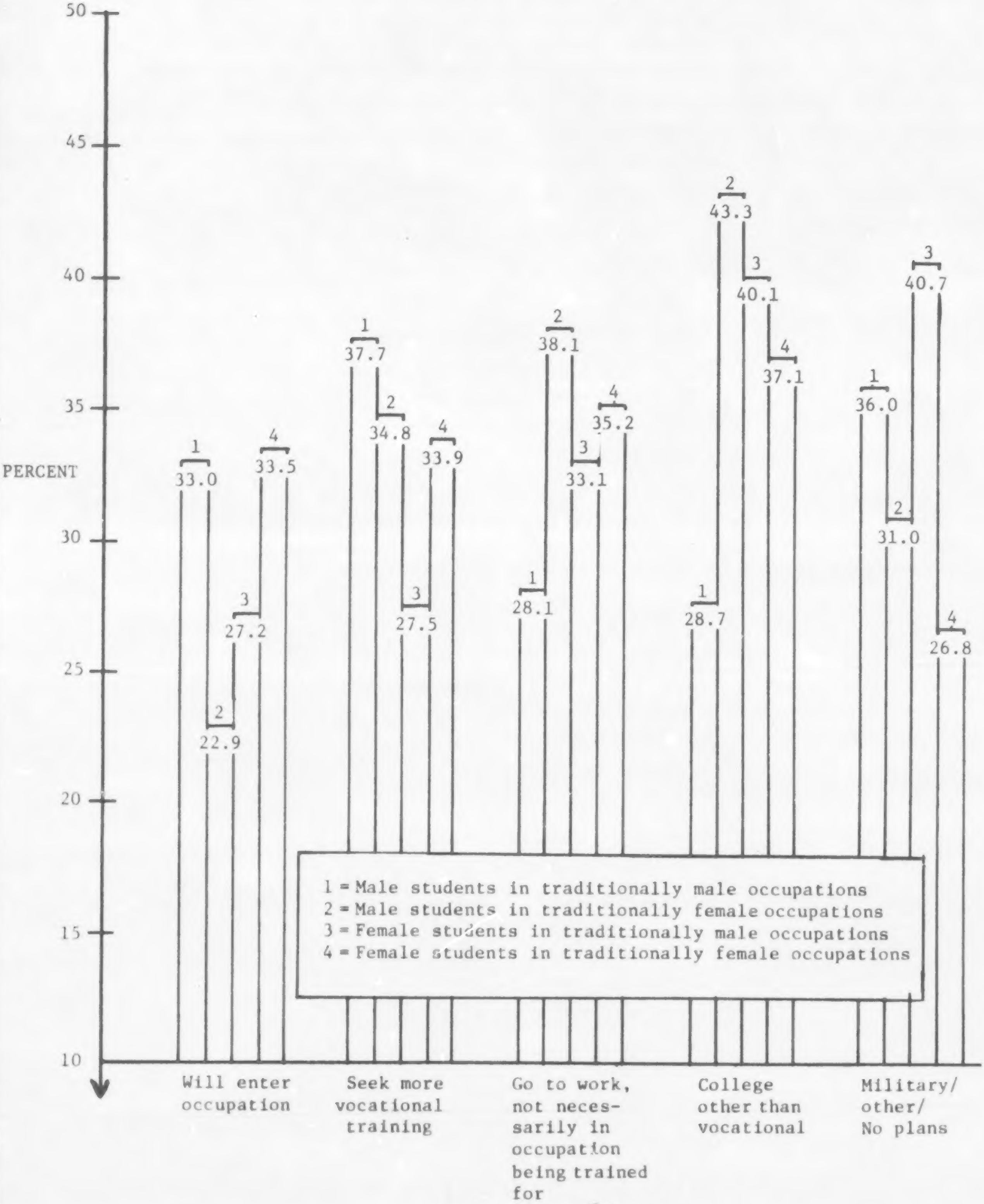
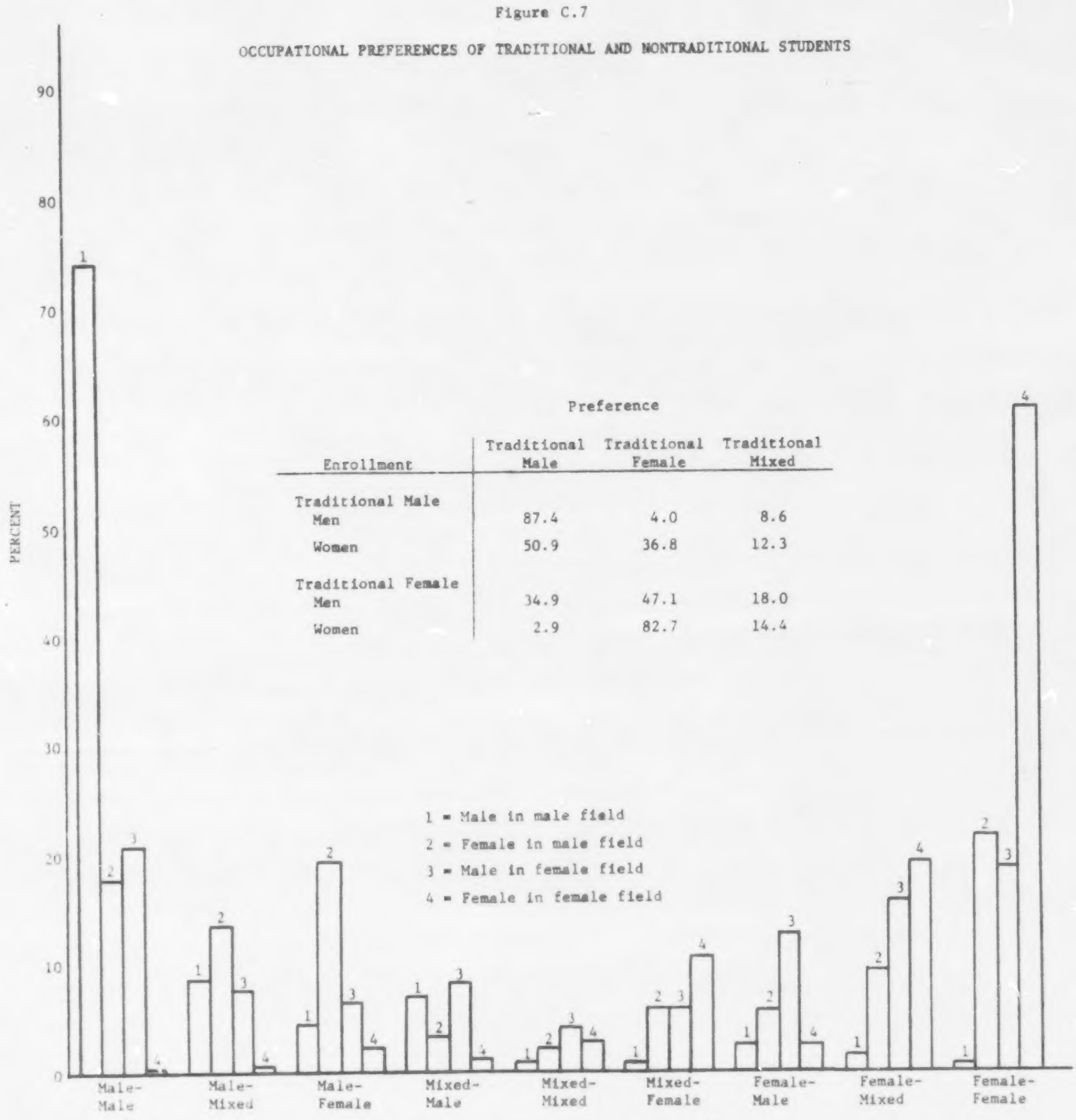


Figure C.7

OCCUPATIONAL PREFERENCES OF TRADITIONAL AND NONTRADITIONAL STUDENTS



	Preference		
Enrollment	Traditional Male	Traditional Female	Traditional Mixed
Traditional Male			
Men	87.4	4.0	8.6
Women	50.9	36.8	12.3
Traditional Female			
Men	34.9	47.1	18.0
Women	2.9	82.7	14.4

*"Male-male" means the first choice was in a male field as was the second choice.
"Male-mixed" means the first choice was in a male area and the second in a mixed area, and so on.

based accounts for the fact that, overall, female students are more likely than male students to plan to enter a traditionally female field for which they are training.)

Female students enrolled in traditionally female occupations are, except in home economics, more likely to seek further vocational training than are men enrolled in these occupations. Women, with the same exception, are more likely than men to plan on working, but not necessarily in the area for which they are training, while men are more likely than women to plan to pursue an academic college program.

- The bottom portion of Table C.10 shows student plans as a function of age,* sex, and enrollment. The proportion of people planning to enter the occupation for which they are training increases with age. In each of the three age categories, students enrolled in programs traditional for their sex were more likely to plan to enter the occupation for which they were training than were nontraditional students. The figures for traditional/nontraditional students are, for the three age categories: 18 years, 28.3%/20.8%; 19-22 years, 56.3%/50.0%; and 23 years, 57.5%/51.6%. For traditionally female occupations, the figures for women/men are: 18 years, 28.2%/13.5%; 19-22 years, 51.7%/34.8%; and 23 years, 70.6%/61.3%. While these differences are consistent, it should be noted that women studying a traditionally male occupation are not strikingly less committed to entering the occupation than are men in the same age group. Sex differences are greater among those studying traditionally female occupations; this is most dramatic among those 18 years old or younger where the percentage for boys is less than half that for girls.

  The only other response category in which there is a consistent difference of more than a couple of percentage points between traditional and nontraditional students is in "college other than vocational." At each age level, fewer traditional than nontraditional students plan to take a nonvocational college program. The same is true for both traditionally male and traditionally female occupations. The figures for men/women in traditionally male occupations are: 18 years, 29.2%/40.1%; 19-22 years, 25.3%/32.8%; and 23 years 28.8%/45.2%. In traditionally female occupations, the figures for women/men are: 18 years, 40.5%/45.5%; 19-22 years, 31.0%/34.8%; and 23 years, 22.1%/35.5%.

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*Three age categories are used: up to 18 years, inclusive, 19 to 22 years, inclusive; and 23 years and older.

Table C.10

STUDENT PLANS BY OCCUPATIONAL AREA AND BY AGE

	Overall N		Will Enter Occupation				Seek More Vocational Training				Go to Work, Not Necessarily in Occupation Being Trained For				College Other Than Vocational				Military/Other/ No Plans			
	Men	Women	Men		Women		Men		Women		Men		Women		Men		Women		Men		Women	
By Occupational Area	N	N	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Health																						
Traditionally Female Occupations	29	139	16	55.2	62	44.6	6	20.7	46	33.1	11	37.9	37	26.6	11	37.9	52	37.4	9	31.0	38	27.3
Home Economics																						
Traditionally Female Occupations	113	305	23	20.4	56	18.4	54	47.7	87	28.6	53	46.9	124	40.6	41	36.3	135	44.2	36	32.0	84	27.6
Business & Office																						
Traditionally Female Occupations	64	349	6	9.4	143	41.0	14	21.9	136	39.0	17	26.6	120	34.3	36	56.3	120	34.3	21	32.8	90	25.8
Distributive Education																						
Traditionally Male Occupations	1	0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Technical																						
Traditionally Male Occupations	115	33	43	37.4	17	51.5	41	35.6	8	24.3	40	34.8	13	39.4	42	36.6	23	69.7	42	36.5	11	33.8
Trade & Industrial																						
Traditionally Male Occupations	761	182	244	32.0	42	23.1	292	38.3	45	24.7	207	27.2	59	32.4	200	26.3	61	33.5	280	36.8	69	38.0
Traditionally Female Occuaptions	5	33	4	80.0	15	45.5	1	20.0	11	33.4	1	20.0	9	27.3	3	60.0	9	27.3	1	20.0	8	25.5
Agriculture																						
Traditionally Male Occupations	117	40	41	35.0	10	25.0	43	36.8	17	42.5	32	27.4	12	30.0	44	37.6	18	45.0	34	29.0	24	60.0
By Age																						
Up to 18																						
Traditionally Male Occupations	828	202	234	28.3	42	20.8	316	38.2	53	26.2	219	26.4	66	32.7	241	29.2	81	40.1	303	36.6	90	44.5
Traditionally Female Occupations	156	699	21	13.5	197	28.2	57	36.5	248	35.5	63	40.4	255	36.5	71	45.5	283	40.5	55	35.2	193	27.6
Age 19-22																						
Traditionally Male Occupations	87	22	49	56.3	11	50.0	33	37.9	6	27.3	33	37.9	7	31.8	22	25.3	7	31.8	27	31.0	4	18.1
Traditionally Female Occupations	23	58	8	34.8	30	51.7	8	34.7	11	19.0	10	43.4	18	31.1	8	34.8	18	31.0	7	30.4	11	19.0
Age 23 and Above																						
Traditionally Male Occupations	80	31	46	57.5	16	51.6	27	33.8	11	35.5	27	33.8	11	33.5	23	28.8	14	45.2	26	32.6	10	32.3
Traditionally Female Occupations	31	68	19	61.3	48	70.6	8	25.9	21	30.9	8	25.9	18	26.5	11	35.5	15	22.1	5	16.1	16	23.6

Table C.11

STUDENTS' FIRST CHOICE OF CAREER

		Male in Traditionally Male Area			Female in Traditionally Male Area			Male in Traditionally Mixed Area			Female in Traditionally Mixed Area			Male in Traditionally Female Area			Female in Traditionally Female Area		
		First Choice			First Choice			First Choice			First Choice			First Choice			First Choice		
		Male	Mixed	Female	Male	Mixed	Female	Male	Mixed	Female	Male	Mixed	Female	Male	Mixed	Female	Male	Mixed	Female
By Occupational Area																			
All Occupational Areas Combined	N	757	75	34	108	26	78	105	218	29	15	319	189	60	31	81	21	105	603
	%	87.4	8.6	4.0	50.9	12.3	36.8	29.8	62.0	8.2	2.8	60.9	36.1	34.9	18.0	47.1	2.9	14.4	82.7
Health	N	N/A	N/A	N/A	N/A	N/A	N/A	1	14	2	N/A	19	11	3	1	22	N/A	9	120
	%	N/A	N/A	N/A	N/A	N/A	N/A	5.9	82.3	11.8	N/A	63.4	36.6	11.5	3.8	84.6	N/A	7.0	93.0
Home Economics	N	N/A	N/A	N/A	N/A	N/A	N/A	9	8	1	3	8	18	40	14	34	12	46	208
	%	N/A	N/A	N/A	N/A	N/A	N/A	50.1	44.4	5.6	10.3	27.5	62.1	45.5	15.9	38.6	4.5	17.3	78.2
Business	N	N/A	N/A	N/A	N/A	N/A	N/A	36	104	11	3	167	63	17	16	20	9	47	249
	%	N/A	N/A	N/A	N/A	N/A	N/A	23.8	68.9	7.2	1.3	71.7	27.0	32.1	30.1	37.7	3.0	15.4	81.6
Distributive Education	N	1	N/A	N/A	N/A	N/A	N/A	38	68	14	7	94	74	N/A	N/A	N/A	N/A	N/A	N/A
	%	100.0	N/A	N/A	N/A	N/A	N/A	31.7	56.7	11.6	4.0	53.8	42.3	N/A	N/A	N/A	N/A	N/A	N/A
Technical	N	90	10	3	13	2	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	%	87.4	9.7	2.9	61.9	9.6	28.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trade and Industrial	N	575	56	26	71	22	61	9	16	1	2	17	10	N/A	N/A	5	N/A	3	26
	%	87.6	8.5	4.0	46.1	14.2	39.6	34.6	61.5	3.8	6.8	58.6	34.4	N/A	N/A	100.0	N/A	10.3	89.6
Agricultural	N	91	9	5	24	2	11	10	8	N/A	N/A	14	12	N/A	N/A	N/A	N/A	N/A	N/A
	%	86.6	8.6	4.8	64.8	5.4	29.7	55.6	44.4	N/A	N/A	53.8	46.1	N/A	N/A	N/A	N/A	N/A	N/A
Other	N	N/A	N/A	N/A	N/A	N/A	N/A	2	N/A	N/A	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A
	%	N/A	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A	N/A	N/A	N/A
By Age																			
Up to 18	N	634	65	23	82	23	68	88	156	21	14	262	176	52	22	52	20	93	501
	%	87.8	9.0	3.2	47.4	13.3	39.3	33.2	58.9	7.8	3.0	58.0	38.9	41.3	17.4	41.3	3.2	15.1	81.7
Age 19-22	N	67	7	3	11	2	4	8	23	4	1	20	9	5	6	9	N/A	6	46
	%	87.0	9.1	3.9	64.7	11.8	23.6	22.9	65.7	11.5	3.3	66.7	30.0	25.0	30.0	45.0	N/A	11.5	88.4
Age 23 and Above	N	56	3	8	15	1	6	7	37	4	N/A	36	4	2	3	20	1	6	55
	%	83.6	4.5	12.0	68.2	4.5	27.2	14.6	77.1	8.4	N/A	90.0	10.0	8.0	12.0	80.0	1.6	9.7	88.7

- When asked to select first and second choices from among a list of occupations, traditional and nontraditional students diverged. Over 85% of the men and about half of the women enrolled in traditionally male occupations picked a male occupation as their first choice. Conversely, over 80% of the women enrolled in a traditionally female occupation picked a female occupation first, while about 47% of the men did. Figure C.7 presents detailed informations on the first and second choices.

  Generally speaking, the same pattern holds when one looks within occupational areas. Over 86% of the men studying traditionally male occupations within traditionally male occupational areas picked a male first choice. Of women similarly situated, 46% in trade and industrial picked a traditionally male first choice; about 62% in technical and 65% in agriculture did likewise.

  Within traditionally female occupations in home economics, 78% of the women made a traditionally female first choice, but only 39% of the men did. In business and office, the corresponding figures were 82% and 38%. Only in traditionally female health occupations were the preferences of the sexes close to equal--93% of the women made a traditionally female first choice, as did 85% of the men.

  The most common choice among students studying traditionally mixed occupations was, in most occupational areas, a mixed occupation. However, with the exception of men in health, those students who did not pick a mixed occupation overwhelmingly chose an occupation traditional for their sex.

  Stereotyped choice is somewhat less among older students. First choices made by women 18 years old or younger who are studying traditionally male occupations is 47% male, those 19-22 years old the figure is 65%; for those 23 years and older, the figure is 68%. They trail the men at each level, however the corresponding figures for men are: 88%, 87%, and 94%. Of women in the three age groups who are studying traditionally female occupations 82%, 88%, and 89%, respectively, choose a traditionally female occupation first; the corresponding figures for men are 41%, 45%, and 80%.

Viewed overall, women enrolled in traditionally male courses were less likely than men in such courses to anticipate entering the occupations for which they were training, to anticipate pursuing further vocational training, or to pick a traditionally male occupation as a first choice. Similar results obtained for men enrolled in traditionally female occupations. The results vary substantially, however, among occupational area and age, particularly as regards plans for the future.

Figure C.8 shows the percentage of male and female students who plan to work after marriage, and the percentage who indicated that marriage (or plans for marriage) affected their educational plans. Women are somewhat less likely than men to indicate plans for working after marriage, with the largest overall spread being between men and women studying traditionally male occupations (about 10%). Women are also somewhat more likely to indicate that marriage affects their occupational choice, but the differences are small. The figure shows the breakdown by type of school. Men in traditionally male occupational programs are more likely to indicate that they plan to work after marriage than are their female counterparts. The same may be said of students studying traditionally female occupations, except for those enrolled in technical institutes.

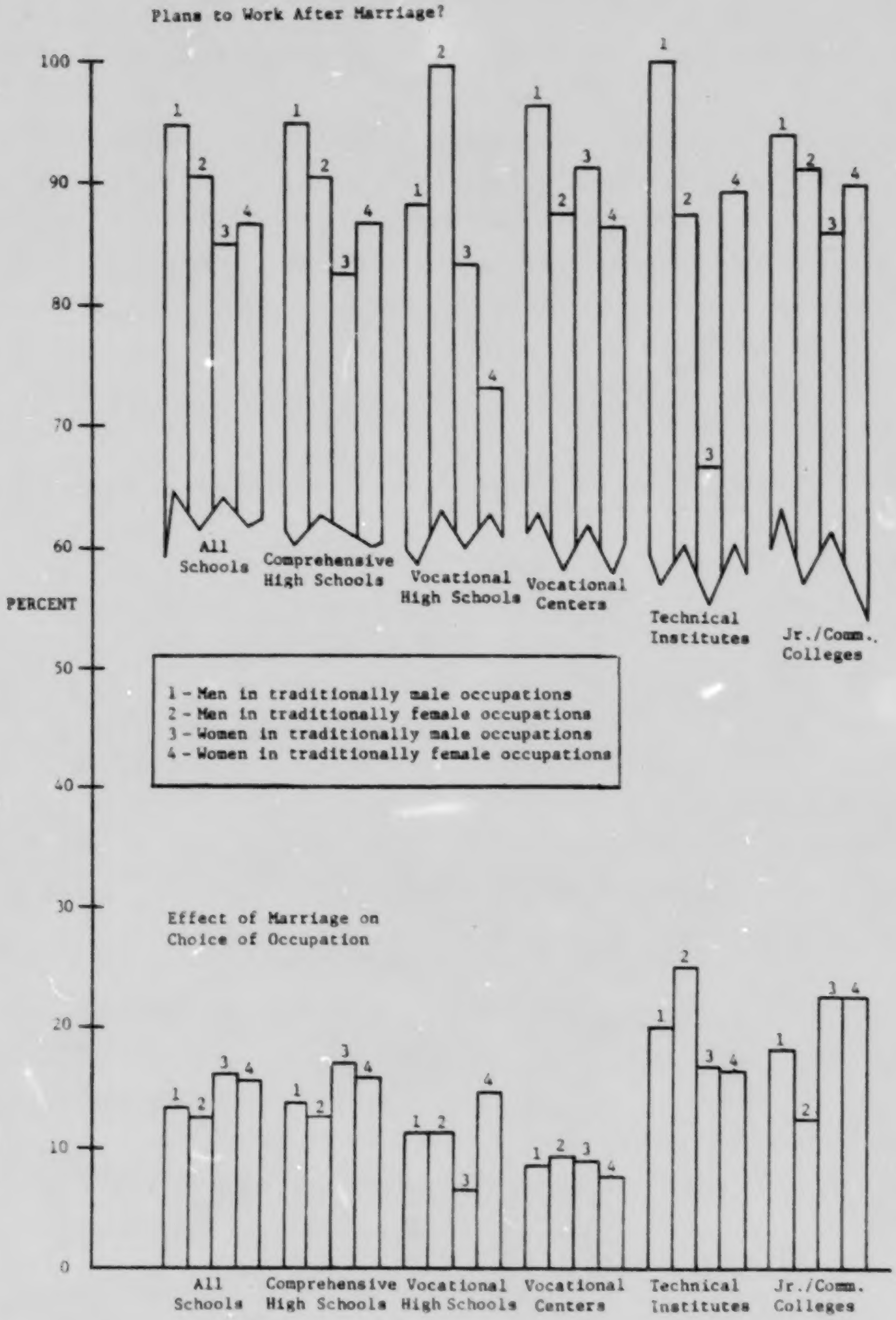
STAFFING PATTERNS AT THE SCHOOL LEVEL

Teachers of traditionally male occupations are predominantly men; teachers of traditionally female occupations are predominantly women. This is true overall and within each occupational area; it is also true for each type of school. The situation for traditionally mixed occupations is somewhat less clearcut: while there are approximately equal numbers of men and women teaching such occupations, overall, the proportions vary greatly between occupational areas, as well as between types of schools. Generally speaking, men predominate in mixed fields within traditionally male occupational areas, while women predominate for mixed fields in traditionally female areas.

About 60% of vocational school counselors are men, as are about 50% of the feeder school counselors sampled. Schools which are devoted entirely to vocational education tend to have higher percentages of male counselors than do schools with major offerings in other fields. Overall, there are few statistically significant correlations between School Activity Indexes and the proportion of nontraditional male or female teachers.

Figure C.8

EFFECT OF MARRIAGE ON OCCUPATIONAL CHOICE



Characteristics of Vocational Teachers

Tables C.12 to C.15 show the number of men and women of each sex teaching in traditionally male, traditionally female, and traditionally mixed occupations.* The first two tables provide, respectively, unweighted and weighted data broken down by occupational area; the last two present the same data by type of school.

The following facts emerge from a review of these tables:

- Overall, more than 96% of those teaching traditionally male occupations are men, while over 87% of those teaching female occupations are women. Only in junior/community colleges (89.5% weighted; 87.9 unweighted) and in traditionally male agricultural occupations 81.9% unweighted, but 97.1% weighted do these percentages dip below 90 for men; only in business and office occupations does the percentage of women go below 80 (77.6% weighted; 77.3% unweighted).

- While there are approximately equal numbers of men and women teaching traditionally mixed occupations, overall, the picture differs substantially when occupational areas are viewed separately. Men predominate in the traditionally male occupational areas of agriculture (97.1% for weighted data/81.9% for unweighted data), and trade and industrial (93.0/94.3); the majority of teachers in mixed distributive education occupations are men as well (82.5%/74.2%). Women are in the majority teaching traditionally mixed occupations in traditionally female occupational areas, but their dominance is less pronounced. The percentage of women, using weighted and unweighted data, are: health, 74.1%/81.0%; home economics, 86.7%/74.2%; and business and office, 55.9%/58.8%.

- Blacks are represented among teachers slightly more than in the population as a whole: 11.4% in the weighted data, 12.75% in the unweighted data, compared to 11.1% in the 1970 census. The corresponding figures for Asians and Pacific Islanders** are: weighted, .6%, unweighted; .9%; and census, .7%. For American Indians and Native Alaskans,***

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*Fractional entries appear in the unweighted data as teachers were allowed to indicate up to three occupations which they taught. A teacher who indicated two occupations was counted as ½ twice, while a teacher who indicated three was counted as 1/3 three times.

**Census data include only Chinese, Japanese, and Filipinos.

***Census data do not include Native Alaskans.

Table C.12

MALE AND FEMALE TEACHERS BY OCCUPATIONAL AREA

(Unweighted Data)

Occupational Area	Total by Sex				Total by Race					Total by Race and Sex									
	Men		Women		White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Native Alaskan	White Men	Black Men	Hispanic Men	Asian/ Pacific Islander Men	American Indian/ Native Alaskan Men	White Women	Black Women	Hispanic Women	Asian/ Pacific Islander Women	American Indian/ Native Alaskan Women
	N	%	N	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Overall																			
Trad. Male	275.9	96.9	8.7	3.1	84.4	13.2	1.2	.8	.4	82.2	12.8	.9	.8	.4	2.2	.5	.4	0.0	0.0
Trad. Female	24.8	12.5	174.1	87.5	84.8	13.8	.8	.5	.2	9.7	2.3	0.0	.5	0.0	75.1	11.5	.8	0.0	.2
Trad. Mixed	93.3	51.4	88.1	48.6	87.1	10.9	.6	1.5	0.0	46.5	3.7	.3	.9	0.0	40.6	7.2	.3	.6	0.0
Health																			
Trad. Female	0.0	0.0	33.8	100.0	92.6	4.4	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.6	4.4	3.0	0.0	0.0
Trad. Mixed	2.0	19.0	8.5	81.0	95.2	4.8	0.0	0.0	0.0	19.0	0.0	0.0	0.0	0.0	76.2	4.8	0.0	0.0	0.0
Home Economics																			
Trad. Female	.8	1.5	52.3	98.5	81.2	17.3	.9	0.0	.6	.9	.6	0.0	0.0	0.0	80.2	16.8	.9	0.0	.6
Trad. Mixed	9.3	25.8	26.7	74.2	77.2	21.4	1.4	0.0	0.0	23.9	1.9	0.0	0.0	0.0	53.3	19.4	1.4	0.0	0.0
Business & Office																			
Trad. Female	23.0	22.7	78.3	77.3	85.1	13.9	0.0	1.0	0.0	18.5	3.3	0.0	1.0	0.0	66.6	10.7	0.0	0.0	0.0
Trad. Mixed	28.4	41.2	40.5	58.8	88.2	9.9	0.0	1.9	0.0	37.4	3.3	0.0	.4	0.0	50.8	6.5	0.0	1.5	0.0
Marketing & Distribution																			
Trad. Male	.7	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Mixed	31.1	74.2	10.8	25.8	94.3	4.1	0.0	1.7	0.0	70.9	1.7	0.0	1.7	0.0	23.4	2.4	0.0	0.0	0.0
Technical																			
Trad. Male	22.5	95.7	1.0	4.3	94.5	1.3	4.3	0.0	0.0	90.2	1.3	4.3	0.0	0.0	4.3	0.0	0.0	0.0	0.0
Trade & Industrial																			
Trad. Male	236.0	98.3	4.0	1.7	82.3	15.4	1.0	.8	.4	81.6	14.9	.6	.8	.4	.7	.5	.4	0.0	0.0
Trad, Female	1.0	9.3	9.7	90.7	74.8	25.2	0.0	0.0	0.0	0.0	9.3	0.0	0.0	0.0	74.8	15.9	0.0	0.0	0.0
Trad. Mixed	5.0	94.3	.3	5.7	39.6	50.9	9.4	0.0	0.0	34.0	50.9	9.4	0.0	0.0	5.7	0.0	0.0	0.0	0.0
Agriculture																			
Trad. Male	16.7	81.9	3.7	18.1	97.1	1.5	0.0	1.5	0.0	78.9	1.5	0.0	1.5	0.0	18.1	0.0	0.0	0.0	0.0
Trad. Mixed	11.7	97.5	.3	2.5	91.7	2.5	0.0	5.8	0.0	89.2	2.5	0.0	5.8	0.0	2.5	0.0	0.0	0.0	0.0
Other																			
Trad. Mixed	5.8	74.3	2.0	25.6	100.0	0.0	0.0	0.0	0.0	74.3	0.0	0.0	0.0	0.0	25.6	0.0	0.0	0.0	0.0

Table C.13

MALE AND FEMALE TEACHERS BY OCCUPATIONAL AREA

(Weighted Data)

Occupational Area	Total by Sex				Total by Race					Total by Race and Sex									
	Men N	Men %	Women N	Women %	White %	Black %	Hispanic %	Asian/ Pacific Islander %	American Indian/ Native Alaskan %	White Men %	Black Men %	Hispanic Men %	Asian/ Pacific Islander Men %	American Indian/ Native Alaskan Men %	White Women %	Black Women %	Hispanic Women %	Asian/ Pacific Islander Women %	American Indian/ Native Alaskan Women %
Overall																			
Trad. Male	41,447	96.3	1,590	3.7	82.0	13.7	3.1	.7	.4	81.4	12.6	1.2	.7	.4	.6	1.1	1.9	0.0	0.0
Trad. Female	3,840	11.1	30,678	88.9	86.2	10.5	2.7	.3	.3	9.2	1.6	0.0	.3	0.0	77.0	8.9	2.7	0.0	.3
Trad. Mixed	15,262	48.3	16,341	51.7	89.8	9.1	.3	.8	0.0	44.5	3.3	0.0	.5	0.0	45.3	5.8	.3	.3	0.0
Health																			
TOTAL	785	6.4	11,477	93.6	85.3	8.1	6.6	0.0	0.0	6.4	0.0	0.0	0.0	0.0	78.9	8.1	6.6	0.0	0.0
Trad. Female	0	0.0	9,233	100.0	81.9	9.4	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.9	9.4	8.7	0.0	0.0
Trad. Mixed	785	25.9	2,244	74.1	95.8	4.2	0.0	0.0	0.0	25.9	0.0	0.0	0.0	0.0	69.9	4.2	0.0	0.0	0.0
Home Economics																			
TOTAL	817	6.2	12,435	93.8	84.4	13.4	1.5	0.0	0.8	5.8	.4	0.0	0.0	0.0	78.6	12.9	1.5	0.0	0.8
Trad. Female	88	1.1	7,671	98.9	87.2	10.2	1.3	0.0	1.4	.6	.5	0.0	0.0	0.0	86.6	9.6	1.3	0.0	1.4
Trad. Mixed	729	13.3	4,764	86.7	80.4	17.8	1.8	0.0	0.0	13.1	.2	0.0	0.0	0.0	67.3	17.6	1.8	0.0	0.0
Business & Office																			
TOTAL	9,969	32.6	20,633	67.4	89.2	10.1	0.0	.7	0.0	27.9	4.3	0.0	.4	0.0	61.3	5.8	0.0	.3	0.0
Trad. Female	3,627	22.4	12,584	77.6	89.8	9.6	0.0	.6	0.0	19.3	2.5	0.0	.6	0.0	70.5	7.2	0.0	0.0	0.0
Trad. Mixed	6,342	44.1	8,049	55.9	88.5	10.6	0.0	.9	0.0	37.6	6.3	0.0	.2	0.0	50.9	4.3	0.0	.6	0.0
Marketing & Distribution																			
TOTAL	5,153	82.7	1,081	17.3	96.9	2.0	0.0	1.0	0.0	81.3	.2	0.0	1.0	0.0	15.6	1.9	0.0	0.0	0.0
Trad. Male	68	100.0	0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Mixed	5,085	82.5	1,081	17.5	96.9	2.0	0.0	1.0	0.0	81.3	.2	0.0	1.0	0.0	15.6	1.9	0.0	0.0	0.0
Technical																			
Trad. Male	4,510	97.2	128	2.8	86.1	6.0	7.9	0.0	0.0	83.3	6.0	7.9	0.0	0.0	2.8	0.0	0.0	0.0	0.0
Trade & Industrial																			
TOTAL	34,864	93.1	2,582	6.9	79.8	16.3	2.6	.8	.5	77.3	14.2	.4	.8	.5	2.6	2.1	2.2	0.0	0.0
Trad. Male	34,258	96.1	1,384	3.9	80.2	15.7	2.7	.8	.5	80.1	14.3	.4	.8	.5	.2	1.4	2.3	0.0	0.0
Trad. Female	126	9.8	1,162	90.2	67.1	32.9	0.0	0.0	0.0	0.0	9.8	0.0	0.0	0.0	67.1	23.1	0.0	0.0	0.0
Trad. Mixed	480	93.0	36	7.0	81.8	18.0	.2	0.0	0.0	74.8	18.1	.1	0.0	0.0	7.0	0.0	0.0	0.0	0.0
Agriculture																			
TOTAL	3,761	97.5	96	2.5	96.0	1.6	0.0	2.5	0.0	93.5	1.6	0.0	2.5	0.0	2.5	0.0	0.0	0.0	0.0
Trad. Male	2,612	97.1	78	2.9	97.7	1.1	0.0	1.2	0.0	94.8	1.1	0.0	1.1	0.0	2.9	0.0	0.0	0.0	0.0
Trad. Mixed	1,149	98.5	18	1.5	92.1	2.6	0.0	5.3	0.0	90.6	2.6	0.0	5.3	0.0	1.5	0.0	0.0	0.0	0.0
Other																			
Trad. Mixed	691	82.2	150	17.8	100.0	0.0	0.0	0.0	0.0	82.2	0.0	0.0	0.0	0.0	17.8	0.0	0.0	0.0	0.0

Table C.14

MALE AND FEMALE TEACHERS BY TYPE OF SCHOOL

(Unweighted Data)

Type of School	Total by Sex				Total by Race					Total by Race and Sex									
	Men		Women		White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Native Alaskan	White Men	Black Men	Hispanic Men	Asian/ Pacific Islander Men	American Indian/ Native Alaskan Men	White Women	Black Women	Hispanic Women	Asian Pacific Islander Women	American Indian/ Native Alaskan Women
	N	%	N	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Overall																			
Trad. Male	275.9	96.9	8.7	3.1	84.4	13.2	1.2	.8	.4	82.2	12.8	.9	.4	.8	2.2	.5	.4	0.0	0.0
Trad. Female	24.8	12.5	174.1	87.5	84.8	13.8	.8	.5	.2	9.7	2.3	0.0	0.0	.5	75.1	11.5	.8	.2	0.0
Trad. Mixed	93.3	51.4	88.1	48.6	87.1	10.9	.6	1.5	0.0	46.5	3.7	.3	0.0	.9	40.6	7.2	.3	0.0	.6
Vocational High School																			
Trad. Male	31.3	100.0	0.0	0.0	73.5	25.6	0.0	1.0	0.0	73.5	25.6	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Female	.3	5.1	6.2	94.9	46.2	53.8	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	46.2	49.2	0.0	0.0	0.0
Trad. Mixed	3.4	64.5	1.8	35.5	38.8	48.3	0.0	12.9	0.0	19.2	32.7	0.0	13.5	0.0	19.2	15.4	0.0	0.0	0.0
Comprehensive High School																			
Trad. Male	145.4	96.9	4.6	3.1	86.9	10.4	.7	1.3	.7	84.1	10.2	.7	1.3	.7	2.9	.2	0.0	0.0	0.0
Trad. Female	19.0	14.4	113.6	85.7	84.3	14.3	.4	.8	.3	11.1	2.5	0.0	.8	0.0	73.2	11.8	.4	0.0	.2
Trad. Mixed	53.5	47.3	59.7	52.7	87.9	9.9	.4	1.8	0.0	43.7	2.7	0.0	.9	0.0	44.2	7.2	.4	.9	0.0
Technical Institute																			
Trad. Male	10.7	100.0	0.0	0.0	43.7	56.3	0.0	0.0	0.0	43.9	56.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Female	0.0	0.0	5.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Trad. Mixed	2.7	40.0	4.0	60.0	70.0	30.0	0.0	0.0	0.0	40.3	0.0	0.0	0.0	0.0	29.9	29.9	0.0	0.0	0.0
Vocational Center																			
Trad. Male	59.5	100.0	0.0	0.0	90.8	8.4	.8	0.0	0.0	90.8	8.4	.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Female	4.0	14.4	23.7	85.5	85.5	14.4	0.0	0.0	0.0	10.8	3.6	0.0	0.0	0.0	24.7	10.8	0.0	0.0	0.0
Trad. Mixed	14.8	54.6	12.3	45.4	87.1	11.1	1.8	0.0	0.0	49.1	3.7	1.8	0.0	0.0	38.0	7.4	0.0	0.0	0.0
Junior & Community Colleges																			
Trad. Male	29.0	87.9	4.0	12.1	84.9	9.1	6.0	0.0	0.0	78.8	6.1	3.0	0.0	0.0	6.1	3.0	3.0	0.0	0.0
Trad. Female	1.5	5.5	25.7	94.5	92.6	3.7	3.7	0.0	0.0	5.5	0.0	0.0	0.0	0.0	87.1	3.7	3.7	0.0	0.0
Trad. Mixed	19.0	64.8	10.3	35.2	96.6	3.4	0.0	0.0	0.0	61.4	3.6	0.0	0.0	0.0	35.2	0.0	0.0	0.0	0.0

Table C.15

MALE AND FEMALE TEACHERS BY TYPE OF SCHOOL

(Weighted Data)

Type of School	Total by Sex				Total by Race					Total by Race and Sex									
	Men		Women		White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Native Alaskan	White Men	Black Men	Hispanic Men	Asian/ Pacific Islander Men	American Indian/ Native Alaskan Men	White Women	Black Women	Hispanic Women	Asian/ Pacific Islander Women	American Indian/ Native Alaskan Women
	N	%	N	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Overall																			
Trad. Male	41,447	96.3	1,590	3.7	82.0	13.7	3.1	.7	.4	81.4	12.6	1.2	.7	.4	.6	1.1	1.9	0.0	0.0
Trad. Female	3,840	11.1	30,678	88.9	86.2	10.5	2.7	.3	.3	9.2	1.6	0.0	.3	0.0	77.0	8.9	2.7	0.0	.3
Trad. Mixed	15,262	48.3	16,341	51.7	89.8	9.1	.3	.8	0.0	44.5	3.3	0.0	.5	0.0	45.3	.3	.3	.3	0.0
Vocational High School																			
Trad. Male	2,200	100.0	0	0.0	84.5	14.1	0.0	1.4	0.0	84.5	14.1	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Female	6	1.4	417	98.7	88.2	11.9	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	88.0	10.4	0.0	0.0	0.0
Trad. Mixed	98	78.0	28	22.0	23.6	27.3	0.0	49.1	0.0	9.9	19.0	0.0	49.1	0.0	13.7	8.3	0.0	0.0	0.0
Comprehensive High School																			
Trad. Male	16,728	99.1	154	.9	87.4	9.0	.8	1.7	1.1	86.6	8.9	.8	1.7	1.1	.8	.1	0.0	0.0	0.0
Trad. Female	2,579	16.9	12,661	83.1	84.5	13.6	.6	.6	.7	14.3	2.0	0.0	.6	0.0	70.2	11.6	.6	0.0	.7
Trad. Mixed	6,372	50.3	6,305	49.7	88.0	9.8	.8	1.4	0.0	48.1	1.5	0.0	.7	0.0	39.9	8.3	.8	.7	0.0
Technical Institute																			
Trad. Male	2,323	100.0	0	0.0	34.2	65.8	0.0	0.0	0.0	34.2	65.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Female	0	0.0	818	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Trad. Mixed	341	29.8	805	70.3	55.6	44.5	0.0	0.0	0.0	29.8	0.0	0.0	0.0	0.0	25.8	44.5	0.0	0.0	0.0
Vocational Center																			
Trad. Male	8,008	100.0	0	0.0	90.4	9.6	0.0	0.0	0.0	90.4	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trad. Female	694	14.9	3,933	85.0	85.0	14.9	0.0	0.0	0.0	9.4	5.6	0.0	0.0	0.0	75.6	9.4	0.0	0.0	0.0
Trad. Mixed	1,350	44.0	1,713	56.0	91.1	8.8	0.0	0.0	0.0	43.9	.1	0.0	0.0	0.0	47.3	8.7	0.0	0.0	0.0
Junior & Community Colleges																			
Trad. Male	12,188	89.5	1,436	10.6	78.2	13.1	8.8	0.0	0.0	77.2	9.6	2.7	0.0	0.0	1.0	3.5	6.1	0.0	0.0
Trad. Female	563	4.2	12,849	95.8	87.6	6.2	6.2	0.0	0.0	3.9	0.0	0.0	0.0	0.0	83.4	6.2	6.2	0.0	0.0
Trad. Mixed	7,100	48.7	7,489	51.3	94.3	5.7	0.0	0.0	0.0	43.0	5.7	0.0	0.0	0.0	51.3	0.0	0.0	0.0	0.0

the data are: weighted, .26; unweighted, .20; and census, .4. Hispanics represent .22% of the weighted and .9% of the weighted totals of teachers interviewed in this study. This is much less than their 5.1 representation in the population.

Thus, the sex of teachers follows traditional occupational lines quite closely for traditionally male and traditionally female occupations, and traditional occupational area lines for mixed occupations in traditionally male or female areas. Marketing and distribution teachers, who work in a traditionally mixed occupational area, are predominantly men in the present sample.

Activity indexes and sex of teachers. Table C.16 shows the correlation of each School Level Activity Index with the proportion of men teaching traditionally female occupations and the corresponding proportion of women teaching traditionally male occupations. Correlations significant at the .10 level appear between the Internal Affirmative Action Index and the percentage of nontraditional teachers both in traditionally male and in traditionally female fields. Thus, higher levels of affirmative action activity goes hand in hand with a higher proportion of nontraditional teachers. A significant correlation also appears between the Teacher Awareness Activities Index and the proportion of males teaching traditionally female occupations. The great majority of the correlations, however, do not come close to being statistically significant at even the .10 level.

Characteristics of Vocational School Counselors

Tables C.17 and C.18 show the number of vocational school counselors by race and sex, in the various regions and types of schools. As used here, "vocational school counselor" means a counselor employed at a school sampled in the present study. Often they have duties other than counseling vocational students; for some , these other duties may be their primary responsibilities. The following findings emerge from an examination of the data:

- About 60% of vocational school counselors are men; the percentages vary from 59.7% to 65.0% among regions of the country in the weighted data, and from 53.8% to 62.0% in the unweighted data. Variation among types of schools is

Table C.16

SCHOOL ACTIVITY INDEXES AND PROPORTION OF NONTRADITIONAL TEACHERS

School Activity Index	Correlation with Proportion of Men Teaching Traditionally Female Occupations	Correlation with Proportion of Women Teaching Traditionally Male Occupations
3-1 Internal Affirmative Action ($\bar{X}$ = 50.0; N = 100; S.D. = 5.0)	r = .1742, N = 88, p = .104	r = .2319, N = 94, p = .024
3-3 Awareness and Support Activities for Students ($\bar{X}$ = 49.9; N = 100; S.D. = 3.2)	r = .0677, N = 88, p = .530	r = .0650, N = 94, p = .534
3-4 Awareness and Support Activities for Older Women ($\bar{X}$ = 50.5; N = 91; S.D. = 9.0)	r = .0122, N = 80, p = .914	r = .0179, N = 85, p = .872
3-5 Teacher Awareness Activities ($\bar{X}$ = 50.0; N = 100; S.D. = 4.5)	r = .2331, N = 88, p = .014	r = .1556, N = 94, p = .134
3-7 Employer/Community Liaison Activities ($\bar{X}$ = 49.9; N = 100; S.D. = 4.4)	r = .0382, N = 88, p = .724	r = .0048, N = 94, p = .964
3-8 Title IX Activities ($\bar{X}$ = 50.1; N = 100; S.D. = 5.0)	r = .0564, N = 88, p = .602	r = .0228, N = 94, p = .828
Overall Index ($\bar{X}$ = 50.0; N = 100; S.D. = 3.0)	r = .1245, N = 88, p = .248	r = .0392, N = 94, p = .708

Table C.17

SEX AND ETHNIC/RACIAL DISTRIBUTION OF VOCATIONAL SCHOOL COUNSELORS BY REGION

(Unweighted Data)

Region		Total by Sex		Total by Race					Total by Race and Sex								
		Male	Women	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Native Alaskan	White Men	Black Men	Hispanic Men	Asian/ Pacific Islander Men	American Indian/ Native Alaskan Men	White Women	Black Women	Hispanic Women	Asian/ Pacific Islander Women
Total for U.S.	N	111	77	142	35	5	5	1	90	14	3	3	1	52	21	2	2
	%	59.0	41.0	75.5	18.6	2.7	2.7	.5	47.9	7.4	1.6	1.6	.5	27.7	11.2	1.1	1.1
North East	N	22	18	36	4	0	0	0	20	2	0	0	0	16	2	0	0
	%	55.0	45.0	90.0	10.0	0.0	0.0	0.0	50.0	5.0	0.0	0.0	0.0	40.0	5.0	0.0	0.0
North Central	N	30	16	38	7	1	0	0	26	3	1	0	0	12	4	0	0
	%	65.2	34.8	82.6	15.2	2.2	0.0	0.0	56.5	6.5	2.2	0.0	0.0	26.1	8.7	0.0	0.0
South	N	28	24	33	18	1	0	0	22	5	1	0	0	11	13	0	0
	%	53.8	46.2	63.5	34.6	1.9	0.0	0.0	42.3	9.6	1.9	0.0	0.0	21.2	25.0	0.0	0.0
West	N	31	19	35	6	3	5	1	22	4	1	3	1	13	2	2	2
	%	62.0	38.0	70.0	12.0	6.0	10.0	2.0	44.0	8.0	2.0	6.0	2.0	26.0	6.0	6.0	6.0

Table C.17 (continued)

(Weighted Data)

Region		Total by Sex		Total by Race					Total by Race and Sex								
		Men	Women	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Native Alaskan	White Men	Black Men	Hispanic Men	Asian/ Pacific Islander Men	American Indian/ Native Alaskan Men	White Women	Black Women	Hispanic Women	Asian/ Pacific Islander Women
Total for U.S.	N	12,465	7,440	15,492	3,204	706	314	187	10,230	1,684	145	219	187	5,263	1,521	561	95
	%	62.6	37.4	77.8	16.1	3.5	1.6	.9	51.4	8.5	.7	1.1	.9	26.4	7.6	2.8	.5
North East	N	2,508	1,552	3,502	558	0	0	0	2,143	365	0	0	0	1,359	193	0	0
	%	61.8	38.2	86.4	13.7	0.0	0.0	0.0	52.8	9.0	0.0	0.0	0.0	33.5	4.8	0.0	0.0
North Central	N	2,266	1,322	3,337	238	13	0	0	2,112	141	13	0	0	1,225	97	0	0
	%	63.2	36.8	93.0	6.6	.4	0.0	0.0	58.9	3.9	.4	0.0	0.0	34.1	2.7	0.0	0.0
South	N	3,110	2,098	3,535	1,544	129	0	0	2,479	502	129	0	0	1,056	1,042	0	0
	%	59.7	50.3	67.9	29.6	2.5	0.0	0.0	47.6	9.6	2.5	0.0	0.0	20.3	20.0	0.0	0.0
West	N	4,585	2,468	5,121	867	564	314	187	3,498	678	3	219	187	1,623	189	561	95
	%	65.0	35.0	72.6	12.3	8.0	4.5	2.7	49.6	9.6	0.0	3.1	2.7	23.0	2.7	8.0	1.3

Table C.18

SEX AND ETHNIC/RACIAL DISTRIBUTION OF VOCATIONAL SCHOOL COUNSELORS BY TYPE OF SCHOOL

(Unweighted Data)

Type of School		Total by Sex		Total by Race					Total by Race and Sex								
		Male	Female	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Native Alaskan	White Men	Black Men	Hispanic Men	Asian/ Pacific Islander Men	American Indian/ Native Alaskan Men	White Women	Black Women	Hispanic Women	Asian/ Pacific Islander Women
All Schools Combined	N	111	77	142	35	5	5	1	90	14	3	3	1	52	21	2	2
	%	59.0	41.0	75.5	18.6	2.7	2.7	.5	47.9	7.4	1.6	1.6	.5	27.7	11.2	1.1	1.1
Vocational High School	N	6	4	6	3	1	0	0	4	1	1	0	0	2	2	0	0
	%	60.0	40.0	60.0	30.0	10.0	0.0	0.0	40.0	10.0	10.0	0.0	0.0	20.0	20.0	0.0	0.0
Comprehensive High School	N	74	57	102	23	1	5	0	62	9	0	3	0	40	14	1	2
	%	56.5	43.5	77.9	17.6	.8	3.8	0.0	47.3	6.9	0.0	2.3	0.0	30.5	10.7	.8	1.5
Technical Institute	N	3	1	2	2	0	0	0	1	2	0	0	0	1	0	0	0
	%	75.0	25.0	50.0	50.0	0.0	0.0	0.0	25.0	50.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0
Junior/Community College	N	16	11	18	5	3	0	1	12	1	2	0	1	6	4	1	0
	%	59.3	40.7	66.7	18.5	11.1	0.0	3.7	44.4	3.7	7.4	0.0	3.7	22.2	14.8	3.7	0.0
Vocational Center	N	12	2	13	1	0	0	0	11	1	0	0	0	2	0	0	0
	%	85.7	14.3	92.9	7.1	0.0	0.0	0.0	78.6	7.1	0.0	0.0	0.0	14.3	0.0	0.0	0.0
Junior High School	N	0	2	1	1	0	0	0	0	0	0	0	0	1	1	0	0
	%	0.0	100.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0

Table C.18 (continued)

(Weighted Data)

Type of School		Total by Sex		Total by Race					Total by Race and Sex								
		Men	Women	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Native Alaskan	White Men	Black Men	Hispanic Men	Asian/ Pacific Islander Men	American Indian/ Native Alaskan Men	White Women	Black Women	Hispanic Women	Asian/ Pacific Islander Women
All Schools Combined	N	12,465	7,440	15,492	3,204	706	314	187	10,230	1,684	145	219	187	5,263	1,521	561	95
	%	62.6	37.4	77.8	16.1	3.5	1.6	.9	51.4	8.5	.7	1.1	.9	26.4	7.6	2.8	.5
Vocational High School	N	222	50	221	38	13	0	0	196	13	13	0	0	25	25	0	0
	%	81.6	18.4	81.6	13.8	4.6	0.0	0.0	72.1	4.8	4.8	0.0	0.0	9.2	9.2	0.0	0.0
Comprehensive High School	N	9,228	5,728	12,196	2,321	124	314	0	7,797	1,211	0	219	0	4,399	1,110	124	95
	%	61.7	38.3	81.5	15.5	.8	2.1	0.0	52.1	8.1	0.0	1.5	0.0	29.4	7.4	.8	.6
Technical Institute	N	434	76	179	330	0	0	0	104	330	0	0	0	76	0	0	0
	%	85.2	14.8	35.2	64.8	0.0	0.0	0.0	20.3	64.7	0.0	0.0	0.0	14.9	0.0	0.0	0.0
Junior/Community College	N	1,905	1,480	2,128	501	569	0	187	1,458	129	132	0	187	670	373	437	0
	%	56.3	43.7	62.9	14.8	16.8	0.0	5.5	43.1	3.8	3.9	0.0	5.5	19.8	11.0	12.9	0.0
Vocational Center	N	676	2	677	1	0	0	0	675	1	0	0	0	2	0	0	0
	%	99.7	.3	99.8	.2	0.0	0.0	0.0	99.6	.1	0.0	0.0	0.0	.3	0.0	0.0	0.0
Junior High School	N	0	104	91	13	0	0	0	0	0	0	0	0	91	13	0	0
	%	0.0	100.0	88.0	12.0	0.0	0.0	0.0	0	0	0	0	0	87.5	12.5	0.0	0.0

more substantial, from 56.3% to 99.7% for the weighted data, and from 56.5% to 75.0% for the unweighted data (both excluding junior high schools). There is a greater proportion of men at schools devoted principally to vocational education--vocational high schools, technical institutes, and vocational centers--than at schools with more comprehensive offerings--comprehensive high schools, and junior/ community colleges. The figures are: 75.0% against 57.0% in the unweighted data, and 91.2% against 60.7% in the weighted data.

- Blacks are well represented relative to their 11.1% of the population, making up 18.6% of the unweighted data, and 16.1% of the weighted data. The weighted and unweighted figures for Asians and Pacific Islanders are 2.7% and 1.6%; for American Indians and Native Alaskans the figures are 2.7% and 1.6%. These figures compare favorably with population values of .67% and .39% for these groups, respectively. Hispanics represent 27% of feeder school counselors sampled (3.5% for the weighted data); their proportion in the population is about 5.1%).

Thus, men are in the majority among vocational school counselors, especially in those schools that are strictly vocational. When analyses of background experience or training were made, there was little reason to conclude that counselors of one sex are better prepared. Although a few differences in preparation appeared, they represented a relatively small proportion of the comparisons made, and did not consistently favor members of one sex.

Characteristics of Feeder School Counselors*

Tables C.19 to C.20 show the number of feeder school counselors by race and sex, in different regions and types of schools. The 'type of school' shown in some of these tables, and mentioned in the discussion refers to the type of school in which the feeder school counselor is located, not the type of school selected in the sample, into which the counselor places students. A review of these tables reveals the following:

- Overall, there are about an equal number of men and women among feeder school counselors. This varies dramatically from region to region from a low of 27.3% in the South, to 72.9% in the North East.

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*A "feeder school counselor" is a counselor working at a school from which students attending one of the schools in the sample are drawn.

Table C.19

SEX AND ETHNIC/RACIAL DISTRIBUTION OF FEEDER SCHOOL COUNSELORS BY REGION

CENSUS REGION		Total by Sex		Total by Race					Total for Each Sex and Race						
		Men	Women	White	Black	Hispanic	Asian	American Indian	White Men	Black Men	Asian Men	American Indian Men	White Women	Black Women	Hispanic Women
Overall	N	74	70	126	14	2	1	1	70	2	1	1	56	12	2
	%	51.4	48.6	87.5	9.7	1.4	0.7	0.7	48.6	1.4	0.7	0.7	38.9	8.3	1.4
North East	N	22	7	27	2	0	0	0	21	1	0	0	6	1	0
	%	75.9	24.1	93.1	6.9	0.0	0.0	0.0	72.4	3.4	0.0	0.0	20.7	3.4	0.0
North Central	N	25	14	36	3	0	0	0	25	0	0	0	11	3	0
	%	64.1	35.9	92.3	7.7	0.0	0.0	0.0	64.1	0.0	0.0	0.0	28.2	7.7	0.0
South	N	15	40	45	9	1	0	0	14	1	0	0	31	8	1
	%	27.3	72.7	81.8	16.4	1.8	0.0	0.0	25.5	1.8	0.0	0.0	56.4	14.5	1.8
West	N	12	9	18	0	1	1	1	10	0	1	1	8	0	1
	%	57.1	42.9	85.7	0.0	4.8	4.8	4.8	47.6	0.0	4.8	4.8	38.1	0.0	4.8

Table C.20

SEX AND ETHNIC/RACIAL DISTRIBUTION OF FEEDER SCHOOL COUNSELORS BY TYPE OF SCHOOL

		White Men	Black Men	Asian Men	American Indian Men	White Women	Black Women	Hispanic Women	Total by Sex		Total by Race				
									Men	Women	White	Black	Hispanic	Asian	American Indian
All Schools Combined	N	70	2	1	1	56	12	2	74	70	126	14	2	1	1
	%								51.4	48.6	87.5	9.7	1.4	.7	.7
Vocational High School	N	3	0	0	0	0	0	0	3	0	3	0	0	0	0
	%	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0
Comprehensive High School	N	36	0	0	0	26	6	0	36	32	62	6	0	0	
	%	52.9	0.0	0.0	0.0	38.2	8.8	0.0	52.9	47.1	91.2	8.8	0.0	0.0	0.0
Technical Institute	N	1	0	0	0	0	0	0	1	0	1	0	0	0	0
	%	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0
Junior/ Community College	N	1	0	0	1	2	0	1	2	3	3	1	1	0	0
	%	20.0	0.0	0.0	20.0	40.0	0.0	20.0	40.0	60.0	60.0	20.0	20.0	0.0	0.0
Vocational Center	N	5	1	0	0	1	0	0	6	1	6	1	0	0	0
	%	71.4	14.3	0.0	0.0	14.3	0.0	0.0	85.7	14.3	85.7	14.3	0.0	0.0	0.0
Junior High School	N	24	1	1	0	27	6	1	26	34	51	7	1	1	0
	%	40.0	1.7	1.7	0.0	45.0	10.0	1.7	43.3	56.7	85.0	11.7	1.7	1.7	0.0

Variation among types of schools is from 40.0% to 100.0%, but the extremes are based on five and three cases respectively; for school types with over seven counselors, the figures are 43.3% and 52.9% for junior high schools and comprehensive high schools, respectively.

- Blacks are represented slightly less than in the population as a whole--9.7% as against 11.1%. For Asians and Pacific Islanders, and American Indians and Native Alaskans, the figures are, respectively, .70 as against .67, and .70 as against .39. Hispanics make up 1.4% of the feeder school counselors sampled, as against 5.1% in the population.

In summary, men and women are about equally represented among feeder school counselors. The situation varies substantially, however, from region to region and by type of school.

PART II: SCHOOL PRACTICES RELATED TO SEX EQUITY

This part is divided into three subparts. They address, in turn:

- School Efforts to Address Inequities.
- Counseling Practices and Student Choices.
- Effects on Students of the Attitudes or Actions of School Personnel.

Together, these subparts provide a picture of the impact of school policies, practices, and activities on sex equity, with particular emphasis on the effect of these policies, practices, and activities on students.

Subpart II.A: School Efforts to Address Inequities

The primary source data for the results reported in Part II are those collected in the interviews with instructors (8 per school*), counselors (up to 4 per school**), and students (35 per school*). The Education Amendments of 1976 require schools to carry out a number of specific programs and activities to reduce sex inequities in vocational education. A part of this study was designed to determine the extent to which such programs and activities have been implemented. Inquiry into five areas of activity was conducted at the school level:

- Activities to reduce sex inequities in staffing patterns
- Sponsorship of programs for students, employers, and community organizations
- Activities to meet special needs of minority students
- Activities to meet the needs of older women returning to school
- Review of policies and materials to ensure sex equity.

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*Slightly fewer in some cases.

**Four counselors per site, divided between the school itself and the "feeder schools" (if any). Unless otherwise specified, counselor data presented in this chapter are for counselors in the sample school itself, not for feeder school counselors.

Each of these areas is discussed in turn, in the first five of the sections that follow. A sixth section is a discussion of some "activity index" data. These activity indexes, which are described in the sixth section, cover topics that overlap those that are discussed in the first five sections.

ACTIVITIES TO REDUCE SEX INEQUITIES IN STAFFING PATTERNS

Questions were asked of counselors and instructors concerning efforts to reduce sex inequities in staffing patterns. Table C.21 summarizes the responses by type of school, and for all schools combined. Overall, about 20% of the respondents report that some action is being taken to reduce sex inequities in staffing, 30% say nothing is happening on this matter, and the remaining half say they don't know. Instructors seem a little less likely to know than counselors, who are a little more likely to respond negatively. If we make the possibly incorrect assumption that if anything were being done at the school level to modify staffing patterns current staff would probably be aware of it, it appears that such action is only being taken at about one-fifth of the schools. Excluding vocational centers, which may be partly secondary and partly postsecondary, it appears that at least as far as our sample is concerned personnel at postsecondary institutions are somewhat more likely to respond "yes" than personnel at secondary schools (about 40% at postsecondary schools and only about 15% at secondary schools).

Those individuals who indicated that some action was being taken to reduce inequities in staffing patterns were asked about the nature of the actions being taken. The following specific activities were inquired about:

- Hiring or promotion of women for ADMINISTRATIVE positions usually filled by men
- Hiring or promotion of men for ADMINISTRATIVE positions usually filled by women
- Hiring or promotion of women for TEACHING positions usually filled by men
- Hiring or promotion of men for TEACHING positions usually filled by women

Table C.21

IS THE SCHOOL MAKING EFFORTS TO REDUCE SEX INEQUITIES IN STAFFING PATTERNS?

(Responses classified in terms of school type)

Type of School		Kind of Respondent	Number and Percent*			
			No	Don't Know	Yes	TOTAL
Comprehensive high school	N	Instructors	144	223	63	430
		Counselors	54	51	22	127
	%	Instructors	33.5	51.9	14.6	100.0
		Counselors	42.5	40.2	17.3	100.0
Vocational high school	N	Instructors	13	25	6	44
		Counselors	6	2	2	10
	%	Instructors	29.6	56.8	13.6	100.0
		Counselors	60.0	20.0	20.0	100.0
Vocational center	N	Instructors	37	62	21	120
		Counselors	6	6	2	14
	%	Instructors	30.8	51.7	17.5	100.0
		Counselors	42.9	42.9	14.2	100.0
Technical institute	N	Instructors	3	11	9	23
		Counselors	2	1	1	4
	%	Instructors	13.0	47.9	39.1	100.0
		Counselors	50.0	25.0	25.0	100.0
Junior or community college	N	Instructors	15	42	36	93
		Counselors	11	4	11	26
	%	Instructors	16.1	45.2	38.7	100.0
		Counselors	42.3	15.4	42.3	100.0
TOTAL	N	Instructors	212	363	135	710
		Counselors	79	64	38	181
	%	Instructors	29.9	51.1	19.0	100.0
		Counselors	43.6	35.4	21.0	100.0

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*Unweighted data.

- Hiring or promotion of women for NONPROFESSIONAL positions usually filled by men
- Hiring or promotion of men for NONPROFESSIONAL positions usually filled by women.

The results are presented in Table C.22. In this table those who answered "no" or "don't know" to the first question are inferred to have given corresponding answers ("no plans" and "don't know" respectively) to the additional questions. Table C.23 shows the same distributions of responses, but with the original eight categories condensed into the following three:

1. Possibly no action
   This incorporates:
   a. Not applicable
   b. Don't know
   c. No plans

2. Will be done
   This incorporates:
   a. Formal planning not begun yet
   b. Informally implemented on individual basis
   c. Formal planning begun

3. Being done
   This incorporates:
   a. Formal implementation begun
   b. Fully implemented or completed.

It is apparent from a comparison of Table C.22 with Table C.21 that the extent of ignorance about whether any "affirmative action" is being taken to ameliorate sex inequities in staffing is about the same for specific kinds of positions (e.g., teaching) as it is for staffing in general; somewhere in the vicinity of 35% of the counselors and 50% of the instructors say they don't know whether any action is being taken or planned.

The "being done" columns of Tables C.22 and C.23 suggest that as far as administrative jobs are concerned there is much more effort to put women in jobs formerly held by men than vice versa. In other words the effort is being focused where the problem is. The same tendency (i.e., more action of the women-into-men's-jobs variety than of the men-into-women's-jobs variety) occurs for nonprofessional jobs, though to a much slighter extent, and to an even slighter extent for teaching jobs.

Table C.22

ACTIONS TO REDUCE SPECIFIC KINDS OF SEX INEQUITIES IN STAFFING PATTERNS

(8 categories of action)

Nature of Action					NUMBER AND PERCENT*								
								Will Do It			Being Done		
Kind of Position for which Hiring or Promoting	Sex Being Hired or Promoted	Sex Usually Holding Position	Kind of Respondent		Not Applicable	Don't Know	No Plans	No Formal Plans	Informally Implemented	Formal Planning Begun	Formal Implementation Begun	Fully Implemented or Completed	TOTAL
Administration	Women	Men	Counselor	N	6	62	77	6	4	2	11	13	181
				%	3.3	34.3	42.5	3.3	2.2	1.1	6.1	7.2	100.0
	Men	Women	Counselor	N	18	69	82	2	2	0	2	6	181
				%	10.0	38.1	45.3	1.1	1.1	.0	1.1	3.3	100.0
Teaching	Women	Men	Instructor	N	26	369	215	8	39	7	24	22	710
				%	3.7	51.9	30.3	1.1	5.5	1.0	3.4	3.1	100.0
			Counselor	N	4	67	84	2	6	1	7	10	181
				%	2.2	37.0	46.4	1.1	3.3	.6	3.9	5.5	100.0
	Men	Women	Instructor	N	28	382	222	4	31	6	15	22	710
				%	3.9	53.8	31.3	.6	4.4	.8	2.1	3.1	100.0
			Counselor	N	5	69	84	3	5	0	2	13	181
				%	2.7	38.1	46.4	1.7	2.8	.0	1.1	7.2	100.0
Nonprofessional	Women	Men	Counselor	N	8	63	77	3	9	2	6	13	181
				%	4.4	34.8	42.5	1.7	5.0	1.1	3.3	7.2	100.0
	Men	Women	Counselor	N	8	68	85	2	6	1	2	9	181
				%	4.4	37.6	46.9	1.1	3.3	.6	1.1	5.0	100.0

*Unweighted data.

Table C.23

ACTIONS TO REDUCE SPECIFIC KINDS OF SEX INEQUITIES IN STAFFING PATTERNS

(Condensed into 3 levels)*

Nature of action								
Kind of position for which hiring or promoting	Sex being hired or promoted	Sex usually holding position	Kind of respondent		1. Not applicable, don't know, or no plans	2. Will do	3. Being done	TOTAL
Administrative	Women	Men	Counselor	N	145	12	24	181
				%	80.1	6.6	13.3	100.0
	Men	Women	Counselor	N	169	4	8	181
				%	93.4	2.2	4.4	100.0
Teaching	Women	Men	Counselor	N	610	54	46	710
				%	85.9	7.6	6.5	100.0
			Counselor	N	155	9	17	181
				%	85.6	5.0	9.4	100.0
	Men	Women	Instructor	N	632	41	37	710
				%	89.0	5.8	5.2	100.0
			Counselor	N	158	8	15	181
				%	87.3	4.4	8.3	100.0
Non-professional	Women	Men	Counselor	N	148	14	19	181
				%	81.8	7.7	10.5	100.0
	Men	Women	Counselor	N	161	9	11	181
				%	88.9	5.0	6.1	100.0

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*The data in this table are the same data as in Table C.22, with responses condensed into fewer categories.

Table C.24 presents the same sort of data as Table C.23 (but for teaching positons only), separately for three types of schools--comprehensive high schools, vocational centers, and junior colleges. These three types were selected because together they account for about 92% of the instructors and counselors in the sample. Counselors at junior colleges and at vocational centers seem to be much more optimistic about whether affirmative action is being taken than their counterparts at comprehensive high schools are--and they also seem more optimistic than their instructor colleagues. Table C.25 presents the data by occupational area of the responding instructors. Generally speaking, the results are about the same for all areas; little affirmative action is reported.

SPONSORSHIP OF PROGRAMS FOR STUDENTS, EMPLOYERS, AND COMMUNITY ORGANIZATIONS

Counselors and instructors were asked about school implementation of the following sex equity programs for students, employers and others:

- Develop programs, activities, or curricula to make students aware of potential sex inequities in education and the labor force and their rights as employees
- Conduct programs or activities for students to make them aware of or encourage them to enter nontraditional programs
- Conduct special job development, job placement, or job follow-up programs or activities for students in nontraditional occupational areas
- Sponsor or conduct programs for employers or community organizations such as unions, the PTA, or service clubs to alert them to problems of sex inequity
- Make special guidance and counseling services available to nontraditional students
- Make day care services available to children of vocational students
- Ensure female representation on all school advisory councils
- Ensure male representation on all school advisory councils

Table C.24

ACTIONS TO REDUCE SPECIFIC KINDS OF SEX INEQUITIES IN STAFFING PATTERNS FOR TEACHERS IN THREE TYPES OF SCHOOL

Nature of action				% of total*				
Sex being hired or promoted	Sex usually holding position	Kind of respondent	Type of School**	1. Not applicable, don't know, or no plans	2. Will do	3. Being done	Total	TOTAL N**
Women	Men	Instructor	Comprehensive high school	89.6	6.0	4.4	100.0	430
			Vocational center	90.9	5.8	3.3	100.0	120
			Junior college	67.7	17.2	15.1	100.0	93
		Counselor	Comprehensive high school	91.4	4.7	3.9	100.0	127
			Vocational center	64.3	0.0	35.7	100.0	14
			Junior college	65.4	3.8	30.8	100.0	26
Men	Women	Instructor	Comprehensive high school	90.9	5.8	3.3	100.0	430
			Vocational center	88.4	5.8	5.8	100.0	120
			Junior college	86.8	7.5	5.7	100.0	93
		Counselor	Comprehensive high school	91.4	3.1	5.5	100.0	127
			Vocational center	71.5	7.1	21.4	100.0	14
			Junior college	73.1	7.7	19.2	100.0	26

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*Unweighted data.

**Two types of school (vocational high school and technical institute) have been omitted from this table because of the small number of cases.

Table C.25

INSTRUCTORS' REPORTS ON THEIR SCHOOLS' ACTION IN REGARD TO HIRING WOMEN FOR TEACHING POSITIONS USUALLY FILED BY MEN

Occupational Area of Respondent Instructor		NUMBER AND PERCENT*								
		1. Not Applicable, Don't Know, or No Plans	2. Will Be Done				3. Being Done			TOTAL
			No Formal Plans	Informally Implemented	Formal Planning Begun	Subtotal	Formal Implementation Begun	Fully Implemented or Completed	Subtotal	
1. Health	N	36	1	4	0	5	4	1	5	46
	%	78.2	2.2	8.7	.0	10.9	8.7	2.2	10.9	100.0
2. Home Economics	N	80	1	3	0	4	2	1	3	87
	%	92.0	1.1	3.5	.0	4.6	2.3	1.1	3.4	100.0
3. Business	N	154	1	8	0	9	4	7	11	174
	%	88.5	.6	4.6	.0	5.2	2.3	4.0	6.3	100.0
4. Merchandising & Distribution	N	35	1	2	2	5	3	1	4	44
	%	79.6	2.3	4.5	4.5	11.3	6.8	2.3	9.1	100.0
5. Technical	N	25	0	4	1	5	2	2	4	34
	%	73.5	.0	11.8	2.9	14.7	5.9	5.9	11.8	100.0
6. Trade & Industrial	N	238	4	11	4	19	9	7	16	273
	%	87.1	1.5	4.0	1.5	7.0	3.3	2.6	5.9	100.0
7. Agriculture	N	39	0	6	0	6	0	2	2	47
	%	83.0	.0	12.8	.0	12.8	.0	4.2	4.2	100.0
8. Combinations of Above	N	2	0	0	0	0	0	0	0	2
	%	100.0	.0	.0	.0	.0	.0	.0	.0	100.0
9. Other	N	1	0	1	0	1	0	1	1	3
	%	33.4	.0	33.3	.0	33.3	.0	33.3	33.3	100.0
TOTAL	N	610	8	39	7	54	24	22	46	710
	%	85.9	1.1	5.5	1.0	7.6	3.4	3.1	6.5	100.0

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*Unweighted data.

The results are presented in Table C.26 for all counselors combined and all instructors combined. Tables C.27a, 27b, and 27c provide corresponding data for responses to three of these items: programs to alert students to potential inequities, programs to make students aware of or encourage them to enter nontraditional programs, and special job development, placement, or follow-up programs for students in nontraditional areas.

Inspection of Table C.26 reveals that on an overall basis the most frequently occurring of the six activities in which both counselors and instructors provided information were activities to encourage students to enter nontraditional programs; 37% of the counselors and 27% of the instructors reported that formal implementation of this kind of activity had at least begun. However approximately 39% of instructors and 22% of counselors report no plans or do not know of any plans for programs of this type. Approximately 36% of instructors and 18% of counselors report special job development or placement programs, while approximately 50% of both groups report no activity in this area. Thus it appears that at a maximum a little more than a third of the schools are actively sponsoring programs for students.

Tables 27a, 27b, and 27c indicate that the types of schools which appear to be most active are vocational centers and junior/community colleges. Table C.27b shows that for programs to make students aware of or encourage them to enter nontraditional courses, at least 50% of the counselors reported this level of implementation for every type of school except comprehensive high schools. The corresponding percentages of instructors, however, are somewhat lower for every type of school (much lower in the case of vocational centers).

Table C.28 presents data from instructors, classified in terms of occupational area, on school efforts to encourage nontraditional enrollment. As this table shows, health occupation instructors, and home economics instructors tend to report the highest level of activity in encouraging students to enter nontraditional occupational programs; 49% of the health occupation instructors responding to this question said that such activities have been fully or partially implemented. The highest percentage of respondents reporting "no plans" is for agriculture instructors (36%).

Table C.26

SCHOOL SPONSORSHIP OF ACTIVITIES FOR STUDENTS, EMPLOYERS, AND COMMUNITY ORGANIZATIONS

Nature of Activity			% of Total*								
			Possibly No Action		Will Be Done			Being Done			
Form of Activity	Function (i.e., What the Program Is to Provide)	Kind of Respondent	Don't Know	No Plans	No Formal Plans	Informally Implemented	Formal Planning Begun	Formal Implementation Begun	Fully Implemented or Completed	Total	Total N*
Program for students	Awareness of inequities & rights	Instructors	27.9	19.1	3.7	25.1	3.2	10.7	10.3	100.0	710
		Counselors	11.7	26.1	4.8	33.5	3.7	11.2	9.0	100.0	188
Program for students	Encourage to enter nontrad. program	Instructors	18.5	20.1	3.4	25.7	4.8	12.7	14.8	100.0	710
		Counselors	4.3	17.6	2.1	36.7	2.1	19.6	17.6	100.0	188
Program for nontrad. students	Job develop., placement, or follow-up programs	Instructors	24.5	26.0	3.0	16.4	4.4	10.2	15.5	100.0	708
		Counselors	12.9	37.1	4.3	26.4	1.6	7.5	10.2	100.0	186
Program for employers or community orgs.	Awareness of sex inequity problems	Instructors	35.7	39.3	2.3	7.2	2.1	5.5	7.9	100.0	708
		Counselors	13.4	57.8	4.8	9.1	1.1	6.9	6.9	100.0	187
Services for nontrad. students	Guidance and counseling	Instructors	18.0	26.8	3.0	23.7	2.4	8.2	17.9	100.0	705
		Counselors	2.7	28.7	1.6	42.0	.0	6.4	18.6	100.0	188
Services for children of students	Day care	Instructors	28.6	51.3	1.7	2.4	2.4	3.6	10.0	100.0	637
		Counselors	7.5	69.0	1.1	3.4	5.2	1.1	12.7	100.0	174
Insure female rep.	Ensure representation of women and men respectively on school advisory councils	Instructors	21.5	15.4	2.0	12.2	1.8	10.5	36.6	100.0	706
Insure male rep.		Instructors	20.6	12.7	1.3	11.2	1.3	10.0	42.9	100.0	702

*Unweighted

Table C.27a

SCHOOL EFFORTS TO ALERT STUDENTS TO SEX INEQUITIES AND EMPLOYMENT RIGHTS; BY TYPE OF SCHOOL

TYPE OF SCHOOL		(1) Don't know		(1) No plans		(3) Will do it; no formal plans		(4) Informally implemented		(5) Formal planning begun		(8) Implementation begun		(9) Fully implemented/completed		N Total	
		Instr.	Couns	Instr.	Couns	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns
Comprehensive High School	N	108	18	84	37	14	8	130	46	10	3	41	9	42	10	429	131
	%	25.2	13.7	19.6	28.2	3.3	6.1	30.3	35.1	2.3	2.3	9.6	6.9	9.8	7.6	100.0	100.0
Vocational High School	N	11	0	11	2	2	0	9	6	3	1	6	0	2	1	44	10
	%	25.0	0.0	25.0	20.0	4.5	0.0	20.5	60.0	6.8	10.0	13.6	0.0	4.5	10.0	100.0	100.0
Vocational Center	N	34	1	24	1	6	0	24	6	6	2	12	2	14	2	120	14
	%	28.3	7.1	20.0	7.1	5.0	0.0	20.0	42.9	5.0	14.3	10.0	14.3	11.7	14.3	100.0	100.0
Technical Institute	N	9	0	3	2	0	0	4	1	2	0	4	1	2	0	24	4
	%	37.5	0.0	12.5	50.0	0.0	0.0	16.7	25.0	8.3	0.0	16.7	25.0	8.3	0.0	100.0	100.0
Junior/Community College	N	36	3	14	7	4	1	11	3	2	1	13	8	13	4	93	27
	%	38.7	11.1	15.1	25.9	4.3	3.7	11.8	11.1	2.2	3.7	14.0	29.6	14.0	14.8	100.0	100.0

Table C.27b

SCHOOL EFFORTS TO ENCOURAGE STUDENTS TO ENTER NONTRADITIONAL PROGRAMS; BY TYPE OF SCHOOL

TYPE OF SCHOOL		(1) Don't know		(1) No plans		(3) Will do it; no formal plans		(4) Informally implemented		(5) Formal planning begun		(8) Implementation begun		(9) Fully implemented/completed		N Total	
		Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.
Comprehensive High School	N	68	6	95	25	12	3	134	58	18	21	53	21	50	16	430	131
	%	15.8	4.6	22.1	19.1	2.8	2.3	31.2	44.3	4.2	16.0	12.3	16.0	11.6	12.2	100.0	100.0
Vocational High School	N	9	0	8	2	3	0	10	3	1	0	9	2	3	3	43	10
	%	20.9	0.0	18.6	20.0	7.0	0.0	23.3	3.0	2.3	0.0	20.9	20.0	7.0	30.0	100.0	100.0
Vocational Center	N	24	0	25	0	5	0	20	4	10	4	13	4	24	5	120	14
	%	20.0	0.0	20.8	0.0	4.2	0.0	16.7	28.6	8.3	28.6	10.8	28.6	20.0	33.7	100.0	100.0
Technical Institute	N	4	0	3	1	1	0	4	1	2	2	4	2	6	0	24	4
	%	16.7	0.0	12.5	25.0	4.2	0.0	16.7	25.0	8.3	50.0	16.7	50.0	25.0	0.0	100.0	100.0
Junior/Community College	N	27	2	12	5	3	1	15	3	3	6	11	6	22	9	93	27
	%	29.0	7.4	12.9	18.5	3.2	3.7	6.1	11.1	3.2	22.2	11.8	22.2	23.7	33.3	100.0	100.0

Table C.27c

SCHOOL EFFORTS TO PROVIDE SPECIAL JOB DEVELOPMENT, PLACEMENT, OR FOLLOW-UP PROGRAMS FOR NONTRADITIONAL STUDENTS; BY TYPE OF SCHOOL

TYPE OF SCHOOL		(1) Don't know		(1) No plans		(3) Will do it; no formal plans		(4) Informally implemented		(5) Formal planning begun		(8) Implementation begun		(9) Fully implemented/completed		N Total	
		Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.	Instr.	Couns.
Comprehensive High School	N	106	19	115	55	13	7	68	32	17	2	51	5	58	10	428	130
	%	24.8	14.6	26.9	42.3	3.0	5.4	15.9	24.6	4.0	1.5	11.9	3.8	13.6	7.7	100.0	100.0
Vocational High School	N	12	1	9	1	4	0	6	4	3	1	3	1	7	2	44	10
	%	27.3	10.0	20.5	10.0	9.1	0.0	13.6	40.0	6.8	10.0	6.8	10.0	15.9	20.0	100.0	100.0
Vocational Center	N	28	2	36	2	2	0	18	3	5	0	7	4	23	2	119	13
	%	23.5	15.4	30.3	15.4	1.7	0.0	15.1	23.1	4.2	0.0	5.9	30.8	19.3	15.4	100.0	100.0
Technical Institute	N	3	0	5	3	0	0	4	0	3	0	4	1	5	0	24	4
	%	12.5	0.0	20.8	75.0	0.0	0.0	16.7	0.0	12.5	0.0	16.7	25.0	20.8	0.0	100.0	100.0
Junior/Community College	N	25	1	19	7	2	1	20	10	3	0	7	3	17	5	93	27
	%	26.9	3.7	30.4	25.9	2.2	3.7	21.5	37.0	3.2	0.0	7.5	11.1	18.3	18.5	100.0	100.0

Table C.28

INSTRUCTORS' REPORTS ON SCHOOL'S ACTIONS TO ENCOURAGE NONTRADITIONAL ENROLLMENTS

Instructor's Occupational Area		Don't know	No plans	Will do it; no formal plans	Informally implemented	Formal planning begun	Implementation begun	Fully implemented or completed	Total
Health	N	5	7	1	8	3	6	17	47
	%	10.6	14.9	2.1	17.0	6.4	12.3	36.2	100.0
Home Economics	N	7	16	4	25	3	17	16	88
	%	8.0	18.2	4.5	28.4	3.4	19.3	18.2	100.0
Business	N	33	41	6	44	9	22	19	174
	%	19.0	23.6	3.4	25.3	5.2	12.6	10.9	100.0
Distributive Education	N	8	10	1	16	0	5	4	44
	%	18.2	22.7	2.3	36.4	0.0	11.4	9.1	100.0
Technical	N	7	3	1	8	3	6	6	34
	%	20.6	8.8	2.9	23.5	8.8	17.6	17.6	100.0
Trade and Industry	N	63	51	10	68	15	31	35	273
	%	23.1	18.7	3.7	24.9	5.5	11.4	12.8	100.0
Agriculture	N	7	17	2	9	1	4	7	47
	%	14.9	36.2	4.3	19.1	2.1	8.5	14.9	100.0
Combination of above	N	1	0	0	1	0	0	0	2
	%	50.0	0.0	0.0	50.0	0.0	0.0	0.0	100.0
Other	N	0	0	0	6	0	1	1	8
	%	0.0	0.0	0.0	75.0	0.0	12.5	12.5	100.0

Only 13% of both counselors and instructors report that their schools are sponsoring programs for employers or community organizations to alert them to problems of inequity; almost three-quarters report no plans to do so (or do not know of any plans). Approximately a quarter of school staff report special guidance and counseling services are being implemented for nontraditional students, and approximately 14% report day care services are being provided. Thus little student- or community-oriented activity appears to be taking place at the school level.

ACTIVITIES TO MEET SPECIAL NEEDS OF MINORITY STUDENTS

Whether or not schools were taking steps to meet the needs of minority students, particularly women, was a further area of investigation. Table C.29a shows no important differences among types of schools, in regard to whether they report making efforts to meet minority needs. As for geographic region, according to Table C.29b the extent of efforts is least in the North Central states. This probably reflects the fact that that minority group members made up a smaller proportion of the population in that region than in any other.

Those individuals who indicated that special steps were being taken were asked about the nature of those activities. Table C.30 presents this information. The following activities were inquired about:

- Provide special training for counselors in serving minority women and/or offer alternative counseling approaches (such as peer counseling for minority women).
- Sponsor or conduct cultural awareness programs for staff dealing with minority concerns.
- Provide native language examination for minority students including aptitude or other admission tests, examinations given during the course of training, and end of training proficiency or licensing examinations.
- Undertake special programs or activities to place minority women.
- Provide English as a Second Language programs or other linguistic support services for those who are nonEnlgish dominant.

Table C.29a

IS THE SCHOOL MAKING EFFORTS TO MEET THE NEEDS OF MINORITY STUDENTS?

(responses classified in terms of type of school)

Type of School		Kind of Respondent	NUMBER AND PERCENT*				
			Not Applicable	No	Don't Know	Yes	TOTAL
Comprehensive High School	N	Instructors	81	91	69	188	429
		Counselors	23	37	4	64	128
	%	Instructors	18.9	21.2	16.1	43.8	100.0
		Counselors	18.0	28.9	3.1	50.0	100.0
Vocational High School	N	Instructors	7	8	5	24	44
		Counselors	2	3	0	5	10
	%	Instructors	15.9	18.2	11.4	54.0	100.0
		Counselors	20.0	30.0	.0	50.0	100.0
Vocational Center	N	Instructors	19	33	18	50	120
		Counselors	1	5	0	8	14
	%	Instructors	15.8	27.5	15.0	41.7	100.0
		Counselors	7.1	35.7	.0	57.2	100.0
Technical Institute	N	Instructors	0	0	6	18	24
		Counselors	0	1	0	3	4
	%	Instructors	.0	.0	25.0	75.0	100.0
		Counselors	.0	25.0	.0	75.0	100.0
Junior or Community College	N	Instructors	1	12	18	62	93
		Counselors	1	9	1	16	27
	%	Instructors	1.1	12.9	19.3	66.7	100.0
		Counselors	3.7	33.3	3.7	59.3	100.0
TOTAL	N	Instructors	108	144	116	342	710
		Counselors	27	55	5	96	183
	%	Instructors	15.2	20.3	16.3	48.2	100.0
		Counselors	14.8	30.0	2.7	52.5	100.0

*Unweighted data.

Table C.29b

IS THE SCHOOL MAKING EFFORTS TO MEET THE NEEDS OF MINORITY STUDENTS?

(responses classified in terms of location of school)

Location		Kind of Respondent	NUMBER AND PERCENT*				
			Not Applicable	No	Don't Know	Yes	TOTAL
North East	N	Instructors	20	35	30	61	146
		Counselors	4	10	2	22	38
	%	Instructors	13.7	24.0	20.5	41.8	100.0
		Counselors	10.5	26.3	5.3	57.9	100.0
North Central	N	Instructors	52	41	28	76	197
		Counselors	12	15	0	19	46
	%	Instructors	26.4	20.8	14.2	38.6	100.0
		Counselors	26.1	32.6	.0	41.3	100.0
South	N	Instructors	17	47	38	128	230
		Counselors	3	19	3	27	52
	%	Instructors	7.4	20.4	16.5	55.7	100.0
		Counselors	5.8	36.5	5.8	51.9	100.0
West	N	Instructors	20	24	21	79	144
		Counselors	8	12	0	29	49
	%	Instructors	13.9	16.7	14.6	54.8	100.0
		Counselors	16.3	24.5	.0	59.2	100.0
TOTAL	N	Instructors	109	147	117	344	717
		Counselors	27	56	5	97	185
	%	Instructors	15.2	20.5	16.3	48.0	100.0
		Counselors	14.6	30.3	2.7	52.4	100.0

*Unweighted data.

Table C.30

ACTIONS TO MEET THE NEEDS OF MINORITY STUDENTS

Nature of Action	Kind of Respondent	% of Total*												Total N**
		Possibly No Action				Will Be Done				Being Done			TOTAL	
		Not Applicable **	Don't Know **	No Plans **	Subtotal	No Formal Plans	Informally Implemented	Formal Planning Begun	Subtotal	Formal Implementation Begun	Fully Implemented or Completed	Subtotal		
a. Special training for counselors	Instructors	20.1	34.0	25.1	79.2	1.0	5.2	.8	7.0	5.1	8.7	13.8	100.0	710
	Counselors	16.4	25.1	28.4	69.9	2.7	14.2	1.1	18.0	4.4	7.7	12.1	100.0	183
b. Cultural awareness programs for staff	Instructors	18.0	22.4	28.5	68.9	.6	7.0	.7	8.3	8.3	14.5	22.8	100.0	710
	Counselors	16.4	25.7	18.6	60.7	1.1	7.1	1.6	9.8	9.3	20.2	29.5	100.0	183
c. Examinations in native language	Instructors	28.8	30.4	28.7	87.9	.3	3.0	.7	4.0	2.7	5.4	8.1	100.0	710
	Counselors	25.2	26.8	29.5	81.5	.5	6.0	1.1	7.6	3.8	7.1	10.9	100.0	183
d. Placement services for minority women	Instructors	20.7	29.7	30.9	81.3	.8	7.5	.7	9.0	3.1	6.6	9.7	100.0	710
	Counselors	19.2	26.2	26.2	71.6	1.1	12.0	.0	13.1	6.0	9.3	15.3	100.0	183
e. Bilingual education (e.g., ESL or equivalent)	Instructors	29.9	23.2	25.8	78.9	.3	1.5	.3	2.1	5.1	13.9	19.0	100.0	710
	Counselors	25.1	25.7	19.2	70.0	.0	2.7	.0	2.7	3.3	24.0	27.3	100.0	183
f. Program to attract minority women	Instructors	24.4	27.9	31.6	83.9	1.0	4.2	.8	6.0	1.8	8.3	10.1	100.0	710
	Counselors	25.7	26.8	24.6	77.1	1.1	8.2	.0	9.3	3.8	9.8	13.6	100.0	183
g. Career awareness programs	Instructors	19.1	24.6	28.3	72.0	1.3	6.8	1.3	9.4	5.4	13.2	18.6	100.0	710
	Counselors	17.0	26.2	18.0	61.2	1.1	10.9	.0	12.0	6.6	20.2	26.8	100.0	183

*Unweighted data

**Estimated

- Undertake special programs, activities, or procedures to attract minority women students.

- Provide special career awareness programs for minority members.

The three most prevalent methods of addressing the needs of minority students are: (1) cultural awareness programs for staff, (2) some form of bilingual education, and (3) career awareness programs for minority students. However these activities are reported by fewer than 30% of the respondents. Approximately 70% to 80% report no special activities to meet the needs of minority students.

ACTIVITIES TO MEET THE NEEDS OF OLDER WOMEN RETURNING TO SCHOOL

Table C.31 shows the results of a series of questions asked of counselors concerning special efforts to meet the needs of older women seeking to return to the job market after a substantial lapse of time away from it, or to enter it for the first time after a period away from school. The specific activities inquired about are:

- Provide special re-entry programs for women who have been out of the labor market for an extended period

- Provide remedial programs for women lacking background to enter traditionally male fields

- Provide evening classes for women who work during the day

- Provide special counseling for women who have been out of the labor market for an extended period

- Provide financial assistance during training for women who have been out of the labor market for an extended period.

About a third of the schools report that they are either taking some action or are planning to do so. Evening classes are being offered in almost a third of the schools, in other words in almost every school that reports it is doing anything at all about returnees. One explanation for the fact that evening classes constitute the most prevalent provision for returnees to school is that they had been widely and routinely offered for many years and therefore were already in existence when the current movement for

Table C.31

COUNSELORS' REPORTS ON ACTIONS TO MEET NEEDS OF OLDER WOMEN RETURNING TO SCHOOL

Nature of action		NUMBER AND PERCENT*											
		Possibly No Action				Will Be Done				Being Done			
		Not Appli-cable **	Don't Know **	No Plans **	Subtotal	No Formal Plans	Informally Implemented	Formal Planning Begun	Subtotal	Formal Imple-mentation Begun	Fully Implemented or Completed	Subtotal	TOTAL
a. Reentry programs	N	70	9	70	149	2	6	2	10	8	19	27	186
	%	37.6	4.9	37.6	80.1	1.1	3.2	1.1	5.4	4.3	10.2	14.5	100.0
b. Remedial programs for entering "male field"	N	65	9	67	141	1	10	4	15	8	22	30	186
	%	35.0	4.8	36.0	75.8	.6	5.4	2.1	8.1	4.3	11.8	16.1	100.0
c. Evening classes	N	66	5	53	124	2	2	0	4	9	49	58	186
	%	35.5	2.7	28.5	66.7	1.1	1.1	.0	2.2	4.8	26.3	31.1	100.0
d. Special counseling	N	69	6	62	137	1	21	1	23	4	22	26	186
	%	37.1	3.2	33.3	73.6	.6	11.2	.6	12.4	2.2	11.8	14.0	100.0
e. Financial assistance	N	70	9	82	161	1	3	1	5	2	18	20	186
	%	37.6	4.9	44.1	86.6	.6	1.5	.6	2.7	1.1	9.6	10.7	100.0
Any of the above	N	65	5	53	123	63							186
	%	34.9	2.7	28.5	66.1	33.9							100.0

*Unweighted data.

**Estimated except for "Any of the above" row, where it is the reported value.

equity in vocational education started. None of the other four activities in Table C.31 occurs in more than one school out of six. However when "informal implementation" is also considered it brings the total for "special counseling" up to about one school in four. Sixteen percent report they are providing remedial programs for women lacking background to enter traditionally male fields; approximately 14% report that special re-entry programs or counseling for women who have been out of the labor market for an extended period are provided. In sum, there is very little activity to meet the needs of older women returning to school.

REVIEW OF POLICIES AND MATERIALS, TO INSURE SEX EQUITY

The study also investigated whether schools were reviewing school activities to insure compliance with state and federal legislation regarding sex equity. The activities inquired about are:

- Review student recruitment policies, practices, and materials to assure they are nondiscriminatory
- Review student admission policies, practices, and materials to assure they are nondiscriminatory
- Invite staff and students to submit information regarding instances of sex discrimination
- Review teaching materials or procedures for sex bias and discrmination
- Conduct self-evaluation in response to Title IX.

Table C.32 summarizes the results.

Well over half of both counselors and instructors indicated, for each action, either that it had been undertaken or that it should be; the range of staff indicating the activity has already been implemented is from 40% to 60%. Less than 20% in each case indicated that the action should not be taken. However from 20-30% of instructors do not know if each activity has been implemented. Thirteen to 24% of counselors are similarly uninformed. The chief perceived need--that is, an activity which has not been done but should be--seems to be for an opportunity for staff and students to submit

Table C.32

SCHOOLS' EFFORTS TO ENSURE COMPLIANCE WITH SEX EQUITY LEGISLATION

Nature of Action		Kind of Respondent	NUMBER AND PERCENT*				
			Don't Know	No		Yes	TOTAL
				Should Not	Should		
a. Review student recruitment policies	N	Instructors	209	93	59	349	710
		Counselors	29	28	20	104	181
	%	Instructors	29.4	13.1	8.3	49.2	100.0
		Counselors	16.0	15.5	11.0	57.5	100.0
b. Review student admission policies	N	Instructors	189	101	46	372	708
		Counselors	25	30	14	109	178
	%	Instructors	26.7	14.3	6.5	52.5	100.0
		Counselors	14.0	16.9	7.9	61.2	100.0
c. Invite submission of information regarding violations	N	Instructors	140	105	169	297	711
		Counselors	25	29	50	84	188
	%	Instructors	19.7	14.8	23.7	41.8	100.0
		Counselors	13.3	15.4	26.6	44.7	100.0
d. Review teaching materials and procedures	N	Instructors	169	120	138	282	709
		Counselors	45	17	40	86	188
	%	Instructors	23.8	16.9	19.5	39.8	100.0
		Counselors	23.9	9.0	21.3	45.8	100.0
e. Title IX school self-evaluation	N	Instructors	244	56	89	321	710
		Counselors	40	14	30	104	188
	%	Instructors	34.4	7.9	12.5	45.2	100.0
		Counselors	21.3	7.4	16.0	55.3	100.0

*Unweighted data.

information regarding instances of sex bias or discrimination. About one-fourth of the respondents said this was needed.

SCHOOL ACTIVITY INDEXES

Seven activity indexes, six representing specific areas of activity and the seventh being an overall index representing a composite of the other six, were computed for each school. Each index is designed to indicate the general level of activity in the school, in the specific area to which it applies. The school activity indexes are described briefly below. Each is identified by a code number in which the first digit (3) indicates that it is a school-level index (not a state-level index), and this "3" is followed by a hyphen and a digit identifying the specific activity area. (It will be noted that these numbers are not consecutive. The gaps result from the fact that for some activity areas there are state-level indexes but not school-level ones.) The following are the seven school-level indexes.

Index 3-1 Internal Affirmative Action. This index reflects the degree to which the schools are making efforts to reduce sex inequities in staffing patterns at the school level.

Index 3-3 Awareness and Support Programs for Students. This index reflects the extent to which schools are conducting or sponsoring activities to identify and overcome sex inequities concerning students.

Index 3-4 Awareness and Support Programs for Older Women. This index provides information on the extent to which special action is taken by the schools to meet the needs of older women.

Index 3-5 Instructor/Counselor. This index describes the extent to which schools have conducted or participated in activities to increase staff awareness of inequities.

Index 3-7 Employer and Community Liaison. This index reflects the degree to which schools are working with employers in the community to reduce sex inequities.

Index 3-8 Title IX Activities. This index describes the schools' efforts relative to conducting Title IX activities and required self-evaluations.

Index 3-0 Overall School-level Activity. This is a composite of the six indexes described above.

Most of the school indexes are based on a combination of instructors' and counselors' responses to interview questions. Two indexes represent exceptions, however: index 3-4 is based on counselors only, since instructors were not asked about special provisions for older women, and index 3-3 is based not only on instructors' and counselors' responses to questions about whether certain special programs for students exist but also on students' responses to questions designed to find out whether they are aware of the existence of such programs. Appendix C.2 gives additional information about the activity indexes.

Table C.33a shows the mean, standard deviation, and both the possible range and the actual range for the 100 schools in the sample. This table is intended primarily as an aid in interpreting the empirical data reported on activity index results in subsequent tables. Also to facilitate interpretation of numerical values on the activity indexes Table C.33b is provided. This table has three columns of point definition for each index. The middle one of these three columns represents the mean value. It is flanked on either side by points two-thirds of a standard deviation below and above the mean, respectively. These two outer points define a range which, if the distribution is normal, includes the middle 50% of the cases. The primary function of these indexes appears in other chapters as they are correlated with activities at the local and school levels, and with various opinions and perceptions of inequity and equity efforts.

Table C.34 provides some evidence on the internal consistency of the activity indexes. This evidence is in the form of correlations between the components (i.e., the "subindexes"*) of an index. The table shows the correlations between the counselor component and the instructor component of the five indexes that have both. The first three correlations are large

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*Defined in Appendix C.2.

Table C.33a

SCHOOL ACTIVITY INDEXES:
MEAN, STANDARD DEVIATION, POSSIBLE RANGE, AND ACTUAL RANGE FOR TOTAL SAMPLE

N = 100 Schools

Index No.	Name of Activity	Ranges of Scores		$\bar{X}$	σ
		Possible Range	Actual Range		
3-1	Internal Affirmative Action	45.9 - 90.2	46 - 71	50.0	5.0
3-3	Awareness and Support Programs for Students	21.1 -101.4	43 - 59	49.9	3.2
3-4	Awareness and Support Programs for Older Women	41.9 - 75.0	42 - 75	50.5	9.0
3-5	Staff Awareness	41.5 - 74.7	42 - 63	50.0	4.5
3-7	Employer/Community Liaison	39.9 - 70.0	40 - 65	49.9	4.4
3-8	Title IX Activities	36.6 - 67.0	37 - 60	50.1	5.0
3-0	Overall Activity Index	36.1 - 81.7	42 - 58	50.0	3.0

Table C.33b

APPROXIMATE MEANING OF VARIOUS POINTS ON SCHOOL ACTIVITY INDEX SCALES

Index No.	Name of Index	Two-thirds s.d. below mean		Mean		Two-thirds s.d. above mean	
		Score	Meaning*	Score	Meaning*	Score	Meaning*
3-1	Internal affirmative action	47	No plans at present	50	Might possibly be done; no formal planning	53	Will probably be done; no formal planning
3-3	Awareness/support for students	48	Will probably be done; no formal planning	50	Formal planning not begun; informally implemented	52	Informally implemented; formal planning begun
3-4	Awareness/support for older women	44	No plans at present	50	Under consideration; no formal planning	56	Informally implemented
3-5	Staff awareness	47	No plans at present	50	No plans at present	53	Might possibly by done; no formal planning
3-7	Employee/community liaison	47	Might possibly be done; no formal planning	50	Formal planning not begun	53	Formal planning begun
3-8	Title IX review	47	Under consideration; no formal planning	50	Formal planning not begun; informally implemented	53	Formal planning begun

*Rough description of status of activities that make up the index.

Table C.34

CORRELATIONS BETWEEN INSTRUCTOR COMPONENT AND COUNSELOR COMPONENT OF SCHOOL ACTIVITY INDEXES

N = 91

Index No.	Name of School Index	r
3-1	Internal affirmative action	.339
3-3	Awareness and support programs for students	.410
3-5	Staff awareness	.319
3-7	Employer/community liaison	.097
3-8	Title IX activities	.113

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enough to suggest that combining information from instructors and counselors concerning these activities gives a more stable (and probably more accurate) index than using either alone would.

Before examining the index scores in greater detail it should be noted that while comparison of different groups on a single index presents no problems, means on different indexes for the same group should be compared only very cautiously if at all. The reason for this is that although each index is scaled to have a mean of 50, they still are not on identical scales; for instance, their standard deviations differ, depending largely on how many components go into them (e.g., three components--counselor, instructor, and student subindexes--make up index 3-3) and how closely the components agree. The less closely they agree the lower the standard deviation of the index will be and therefore the lower the deviation of the score of an individual school or the mean of a subgroup of schools will be from the overall mean, 50. (This is reasonable, because it means that the more stable an index is the more salient it will be and thus the more influence it will have. Nevertheless caution is indicated.)

Table C.35a shows mean scores and standard deviations on the various school activity indexes by geographical region. Table C.35b shows similar data by type of school. Tables C.36a and 36b provide tests of the significance of differences in activity index means between geographical regions and types of schools.

It is apparent from Table C.35a that the southern schools report a higher level of activity to combat sex inequity than do schools in any other part of the country; it is equally apparent that the Northeast reports the lowest level of activity of any region. Table C.36a makes it clear that these differences between South and Northeast are mostly large enough to be statistically significant.* The southern schools also report significantly more activity in regard to sex equity than do schools in the North Central states or in the West, with respect to two of the "topic" activity indexes**--3-3 (awareness and support programs for students) and

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*Two-tailed t-test of significance.

**These two indexes are composed largely, but not exclusively, of activities described in Table C.26.

Table C.35a

SCHOOL ACTIVITY INDEXES: MEANS, STANDARD DEVIATIONS AND RANGE OF SCHOOL MEANS BY CENSUS BUREAU REGIONS

N = 100 Schools

Census Region	No. of Sch.		Activity Index						
			3-1 Internal Affirmative Action	3-3 Awareness and Support Programs for Students	3-4 Awareness and Support Programs for Older Women	3-5 Instructor/ Counselor Awareness	3-7 Employer and Community Liaison Activities	3-8 Title IX Review Activities	3-0 Overall Index
Northeast	19	$\bar{X}$	45.24	49.22	48.48	49.05	48.93	47.86	48.87
		σ	5.17	2.44	7.43	4.55	4.42	4.76	2.58
		(Range)	(46-60)	(46-53)	(42-68)	(42-63)	(40-59)	(38-55)	(44-53)
North Central	31	$\bar{X}$	49.17	48.72	52.70	49.95	49.18	50.30	49.60
		σ	5.11	3.20	9.63	4.93	5.17	5.65	3.36
		(Range)	(46-71)	(43-54)	(42-75)	(42-62)	(40-56)	(37-60)	(42-58)
South	31	$\bar{X}$	51.19	51.51	50.36	50.16	51.84	51.24	51.15
		σ	5.36	3.17	8.18	4.01	3.77	4.65	2.47
		(Range)	(46-66)	(46-59)	(42-75)	(44-58)	(46-63)	(44-60)	(46-55)
West	19	$\bar{X}$	50.18	49.66	49.28	50.82	48.99	50.02	49.85
		σ	3.62	2.85	10.33	4.59	3.26	4.35	2.90
		(Range)	(46-60)	(45-55)	(42-75)	(43-60)	(43-55)	(40-60)	(45-57)

Table C.35b

SCHOOL ACTIVITY INDEXES: MEANS, STANDARD DEVIATIONS, AND RANGE OF SCHOOL MEANS BY TYPE OF SCHOOL

N = 100 Schools

Type of School	No. of Sch.		Activity Index						
			3-1 Internal Affirmative Action	3-3 Awareness and Support Programs for Students	3-4 Awareness and Support Programs for Older Women	3-5 Instructor/ Counselor Awareness	3-7 Employer and Community Liaison Activities	3-8 Title IX Review Activities	3-0 Overall Index
Comprehensive High School	62	$\bar{X}$	48.96	49.15	47.62	50.01	49.35	49.18	49.17
		Std. Dev.	3.93	3.21	6.06	4.74	4.35	4.96	2.64
		(Range)	(46-63)	(43-59)	(42-62)	(42-63)	(40-63)	(37-60)	(42-55)
Vocational High School	6	$\bar{X}$	47.96	50.40	43.52	49.14	49.55	47.50	48.59
		Std. Dev.	2.38	3.69	1.91	2.58	2.90	4.29	2.30
		(Range)	(46-51)	(46-55)	(42-46)	(45-53)	(45-52)	(41-53)	(46-52)
Vocational Center	16	$\bar{X}$	49.55	50.76	52.02	51.15	51.28	51.28	50.86
		Std. Dev.	5.39	2.65	7.04	3.66	4.01	5.14	2.66
		(Range)	(46-66)	(45-56)	(42-62)	(46-58)	(43-58)	(44-59)	(46-55)
Technical Institute	3	$\bar{X}$	54.73	50.13	63.74	47.46	51.75	53.41	52.38
		Std. Dev.	3.59	4.28	15.71	2.35	4.42	2.17	2.98
		(Range)	(51-58)	(46-54)	(46-75)	(46-50)	(48-57)	(52-56)	(49-54)
Junior/Community College	13	$\bar{X}$	55.40	51.78	62.28	49.59	50.73	53.26	52.93
		Std. Dev.	6.23	2.28	9.22	5.26	5.71	4.23	2.77
		(Range)	(48-71)	(49-56)	(46-75)	(42-59)	(42-56)	(46-60)	(49-58)

Table C.36a

SIGNIFICANCE OF DIFFERENCES BETWEEN GEOGRAPHIC REGION MEANS ON SCHOOL ACTIVITY INDEXES

Region B → A ↓	No. of Schools	School Index	North Central		South		West	
			df	t_{A-B}	df	t_{A-B}	df	t_{A-B}
1. North East	19	3-0	48	-.811	48	-3.115***	36	-1.101
		3-1		-2.628**		-3.861****		-3.412***
		3-3		.584		-2.694***		-.511
		3-4		-1.633		-.816		-.274
		3-5		-.645		-.903		-1.194
		3-7		-.175		-2.481**		-.048
		3-8		-1.570		-2.473**		-1.460
2. North Central	31	3-0			60	-2.069*	48	-.269
		3-1				-1.159		-.752
		3-3				-3.449***		-1.050
		3-4				1.031		1.186
		3-5				-.184		-.621
		3-7				-2.315*		.143
		3-8				-.715		.185
3. South	31	3-0					48	1.690
		3-1						.725
		3-3						2.079*
		3-4						.410
		3-5						-.535
		3-7						2.727***
		3-8						.922
4. West	19							

Note: The tests of significance in this table are for differences between Table C.35a means.

*Significant at .05 level
**Significant at .02 level
***Significant at .01 level
****Significant at .001 level
df = number of degrees of freedom.

Table C.36b

SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS FOR TYPES OF SCHOOLS ON SCHOOL ACTIVITY INDEXES

School Type A ↓ B →	No. of Sch.	Sch. Index	Vocl. H.S.		Vocl. Ctr.		Tech. Inst.		Jr./Comm. Coll.	
			df	t_{A-B}	df	t_{A-B}	df	t_{A-B}	df	t_{A-B}
1. Comprehensive High School	62	3-0	66	.519	76	-2.280*	63	-2.048*	73	-4.631****
		3-1		.610		-.494		-2.490**		-4.807****
		3-3		-.900		-1.848		-.510		-2.802**
		3-4		1.639		-2.504**		-4.140****		-7.191****
		3-5		.441		-.894		.921		.285
		3-7		-.110		-1.606		-.933		-.983
		3-8		.800		-1.499		-1.462		-2.759***
2. Vocational High School	6	3-0			20	-1.842	7	-2.133	17	-3.330***
		3-1				-.689		-3.444**		-2.796**
		3-3				-.255		.099		-1.009
		3-4				-2.877***		-3.344**		-4.864****
		3-5				-1.227		.944		-.197
		3-7				-.960		-.914		-.474
		3-8				-1.598		-2.196		-2.747**
3. Vocational Center	16	3-0					17	-.895	27	-2.046
		3-1						-1.580		-2.711***
		3-3						.347		-1.096
		3-4						-2.184*		-3.400***
		3-5						1.661		.940
		3-7						-.184		.304
		3-8						-.693		-1.115
4. Technical Institute	3	3-0							14	-.307
		3-1								-.177
		3-3								-.969
		3-4								.219
		3-5								-.672
		3-7								.287
		3-8								.059
5. Junior/ Community College	13									

*Significant at .05 level
**Significant at .02 level
***Significant at .01 level
****Significant at .001 level

Note: The tests of significance in this table are for differences between Table C.35b means.
df = number of degrees of freedom.

3-7 (employer and community liaison). And the Northeast reports significantly less activity with respect to affirmative action (index 3-1) than any other section of the country.

As for differences between the various kinds of schools, junior colleges and technical institutes appear to be making the greatest effort to achieve sex equity and comprehensive high schools and vocational high schools the least. As Table C.36b shows, these conclusions are supported by a great many significant differences (i.e., significant at least at the .05 level*).

In the case of differences among types of school, the activity indexes most likely to show significant differences are indexes 3-4 (awareness and support programs for older women)and 3-1 (internal affirmative action), as well as the overall index.

Table C.37 shows the correlations between the state level and school-level activity indexes. They are generally quite low; only 9 of the 77 correlation coefficients are significant. The school-level activity index that appears to be most closely associated with what is happening at the state level is index 3-3 (awareness and support activities for students). Furthermore, the state index for monitoring/review/data collection (Index 1-10), which represents the bulk of state-level activity, has the highest general level of correlation with the indexes representing activity at the school level. This is important because state index 1-10 is the one that represents an important interface between state and school; it appears that the more attention the state pays to what the school is doing, the more the school tends to do.

Subpart II.B: Counseling Practices and Student Choices

What procedures do counselors use to attract students to vocational programs? How do students learn about vocational programs? By whom are students influenced in choosing vocational programs? These questions are addressed in this section, using a combination of counselor and student data.

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*Two-tailed t-test of significance.

Table C.37

INTERCORRELATIONS AMONG STATE-LEVEL AND SCHOOL-LEVEL ACTIVITY INDEXES[a]

Correlation Coefficients[b]

	State Level Activity Indexes										School Level Activity Indexes									
State-Level Indexes	1-2	1-5	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-0	3-1	3-3	3-4	3-5	3-7	3-8	3-0	N^b	$\bar{X}$	σ
1-1 Internal Affirm Action	.517***	.049	.416***	.249*	.462***	.293**	.096	.026	.175	.645	-.023	.070	-.322	-.168	-.151	-.025	-.160	95	53.1	7.3
1-2 Incentives to Schools		.055	.061	.046	.582***	.144	.285**	.192	.175	.595	-.118	-.026	-.024	.002	-.059	-.107	-.138	95	53.7	5.0
1-5 Teacher Train/Awareness			.103	.274**	.210*	.314**	.104	.098	-.058	.425	.054	.315**	.139	-.143	.153	.067	.147	95	49.3	10.3
1-7 Employer/Community Liaison				.152	.495***	.691***	.181	.190	.094	.604	.162	.129	-.035	-.121	.040	-.024	.037	95	53.7	4.4
1-8 Title IX Review					.444***	.411***	.084	.231*	.071	.547	.045	.226*	.090	-.111	.125	.089	.121	95	50.3	8.2
1-9 Model Building/Research						.582	.185	.309**	.110	.829	-.068	.067	-.063	-.098	.124	-.111	-.040	95	51.3	4.8
1-10 Monitor/Review/Data Collect.							.159	-.004	.045	.717	.258*	.343***	.028	-.040	.213*	.087	.233*	95	53.8	6.7
1-11 Money to 104(b)(1)								-.131	.057	.417	-.121	-.027	-.119	-.013	-.115	-.174	-.147	95	51.8	10.7
1-12 Advisory Council									-.073	.218	-.127	-.057	-.044	-.039	.106	-.130	-.051	95	52.2	6.7
1-13 Sex Equity Coordinator										.225	-.040	.041	-.039	-.131	.033	-.062	-.053	95	52.8	5.1
1-0 Overall Index											.017	.214*	-.114	-.154	.075	-.066	-.037	95	52.5	3.5
School-Level Indexes																				
3-1 Internal Affirmative Action												.493***	.237*	.237*	.091	.315**	.630	100	50.0	5.0
3-3 Awareness and Support for Students													.124	.260**	.543***	.515***	.786	100	49.9	3.2
3-4 Awareness and Support for Older Women														-.029	.147	.244*	.471	91	50.5	9.0
3-5 Staff Awareness															.139	.328***	.524	100	50.0	4.5
3-6 Empyoyer and Community Liaison																.378***	.615	100	49.9	4.4
3-8 Title IX Review																	.746	100	50.1	5.0
3-0 Overall Index																		100	50.0	3.0

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*p <.05
**p <.01
***p <.001

[a] The school is the unit of analysis in these data

[b] Each correlation coefficient is based on all available pairs. The number of schools on which each coefficient is based is the lower of the numbers in the N column for the variables correlated, except that for the correlations between index 3-4 and the 11 state indexes, the number of schools (N) is only 86. See footnotes on Table C.45b for an explanation of why N is not uniformly 100.

PROCEDURES FOR ATTRACTING AND PLACING STUDENTS

Tables C.38a and C.38b show the methods used by vocational and feeder school counselors, respectively, to place students in vocational school programs. The observations below emerge from a review of these tables:

- Men and women counseling in vocational schools are just about equally likely to report using each of several methods to bring training opportunities to the attention of students. The most common method, employed by over 85% of counselors, is the use of written materials. Next most common is the use of special programs or classes, followed by personal contact between the counselor and the student. No substantial differences appear between men and women within any type of school, and use of written materials was the most commonly reported method within each type of school.

  A similar pattern appears for feeder school counselors, except that a noticably greater percentage of male than female counselors indicated use of written materials and personal student contact. In most types of schools, written materials are the most commonly used medium for bringing opportunities to the attention of students.

- Special pamphlets and bulletins are the most commonly used kind of literature, as reported both by vocational and feeder school counselors. Course descriptions and catalogues are in second place, followed by audiovisual materials. The same pattern holds true in most types of schools, although course descriptions and catalogs are most commonly used in a few instances. On the whole, men and women do not differ substantially in their choice of materials. It is true, however, that men in feeder schools are more likely to indicate the use of course descriptions and catalogs more than are their female counterparts.

- The most common method of deciding who is to be admitted if more applicants exist than vacancies is 'first come, first served' according to vocational school counselors of each sex, as well as female feeder school counselors. Male feeder school counselors are most likely to specify previous achievement as the method used. Within both feeder and vocational schools, women are more likely to cite 'first come, first served' than are the men; men in the former are more likely than women to cite previous achievement, while in the latter, more men than women cite seriousness of interest or intent.

- Counselors of each sex in vocational and in feeder schools indicate student preference most frequently as the primary

Table C.38a

PLACEMENT METHODS USED BY VOCATIONAL SCHOOL COUNSELORS IN THE SCHOOLS WITH VOCATIONAL STUDENTS (i.e., SCHOOLS IN THE SAMPLE)

ITEM	Percent of Counselors*											
	Total		Vocational[a] High School		Comprehensive[a] High School		Technical[a] Institute		Junior/Community[a] College		Vocational[a] Center	
	Men (N = 111)	Women (N = 77)	Men (N = 6)	Women (N = 6)	Men (N = 73)	Women (N = 56)	Men (N = 3)	Women (N = 1)	(N = 16)	(N = 11)	(N = 13)	(N = 3)
A. Training opportunities brought to attention of students?												
1. By counselors	51.4	49.4	50.0	50.0	49.3	49.1	33.3	0.0	50.0	63.6	69.2	33.3
2. By writter materials	88.3	87.0	66.7	66.7	86.3	89.3	100.0	100.0	100.0	81.8	92.3	100.0
3. Special programs/classes	62.1	59.7	50.0	66.7	63.0	60.0	100.0	0.0	43.8	54.5	76.9	100.0
4. Other	21.6	22.1	16.7	16.7	17.8	25.9	33.3	0.0	43.8	9.1	15.4	33.3
5. Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B. What kinds of literature are used?												
1. Course descriptions/catalogs	38.7	41.6	50.0	66.7	35.2	40.0	66.7	100.0	50.0	27.3	38.5	66.7
2. Special pamphlets, bulletins, emphasizing course	75.7	77.9	50.0	50.0	71.2	76.8	100.0	100.0	100.0	90.9	76.9	100.0
3. Films/AV materials	18.9	16.9	16.7	16.7	16.4	20.0	0.0	0.0	18.8	9.1	38.5	0.0
4. Other	4.5	6.5	0.0	16.7	4.1	5.5	0.0	0.0	12.5	9.1	0.0	0.0
5. Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C. How is it decided who admitted if more applicants than slots?												
1. Previous achievement	21.6	20.8	16.7	33.3	21.4	23.1	33.3	0.0	33.3	18.2	15.4	0.0
2. Seriousness of intent/interest	13.5	6.5	16.7	0.0	15.1	8.9	0.0	0.0	0.0	0.0	23.1	0.0
3. First come first served	34.2	41.6	33.3	33.3	28.7	35.7	100.0	100.0	62.5	72.7	15.4	33.3
4. Other	64.0	58.4	50.0	66.7	68.5	64.3	0.0	0.0	43.8	36.4	84.6	33.3
5. Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D. Most important for curriculum recommendations?												
1. Student records	25.2	40.3	33.3	50.0	27.8	48.2	50.0	0.0	13.3	9.1	23.1	0.0
2. Student preference	76.6	74.0	100.0	66.7	79.5	71.4	33.3	100.0	75.0	81.8	61.5	100.0
3. Parental preference	10.8	7.8	33.3	0.0	12.3	10.7	0.0	0.0	0.0	0.0	7.7	0.0
4. Other	18.9	11.7	0.0	0.0	17.8	14.5	0.0	0.0	25.0	9.1	30.8	0.0

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* Unweighted data.

Table C.38b

PLACEMENT METHODS USED BY FEEDER SCHOOL COUNSELORS

ITEM	Percent of Counselors*											
	Total		Vocational High School**		Comprehensive High School**		Technical Institute**		Junior/Community College**		Vocational Center**	
	Men (N = 78)	Women (N = 69)	Men (N = 5)	Women (N = 4)	Men (N = 33)	Women (N = 36)	Men (N = 4)	Women (N = 4)	Men (N = 11)	Women (N = 9)	Men (N = 25)	Women (N = 16)
A. Training opportunities brought to attention of students?												
1. By counselors	53.8	42.0	100.0	50.0	51.6	51.6	50.0	50.0	45.5	44.4	56.0	33.3
2. By written materials	82.0	71.0	80.0	100.0	72.7	58.3	50.0	75.0	100.0	77.8	92.0	87.5
3. Special programs/classes	57.7	58.0	80.0	50.0	45.5	47.2	25.0	25.0	54.4	77.8	76.0	81.3
4. Other	21.8	14.5	0.0	0.0	18.2	16.7	75.0	75.0	18.2	11.1	24.0	0.0
5. Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B. What kinds of literature used?												
1. Course descriptions/catalogs	39.7	29.0	100.0	0.0	46.7	26.7	25.0	25.0	54.5	33.3	24.0	53.0
2. Special pamphlets, bulletins emphasizing course	64.1	59.4	20.0	100.0	39.4	44.4	75.0	75.0	90.9	77.8	92.0	68.8
3. Films/AV materials	19.2	17.4	20.0	0.0	15.2	16.7	0.0	50.0	27.3	22.2	24.0	12.5
4. Other	3.8	7.2	0.0	0.0	9.1	13.9	0.0	0.0	0.0	0.0	0.0	0.0
5. Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C. How is it decided who admitted if more applicants than slots?												
1. Previous achievement	23.1	18.8	40.0	50.0	20.0	13.0	0.0	0.0	44.4	25.0	34.8	40.0
2. Seriousness of intent/interest	5.1	4.3	0.0	0.0	3.0	0.0	0.0	0.0	9.1	0.0	8.0	18.8
3. First come first served	16.7	26.1	20.0	0.0	18.2	19.4	25.0	25.0	18.2	55.6	12.0	31.3
4. Other	59.0	47.8	80.0	100.0	45.5	41.7	50.0	50.0	36.4	22.2	84.0	62.5
5. Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D. Most important for curriculum recommendations?												
1. Student records	32.0	39.1	40.0	75.0	40.6	26.5	25.0	25.0	54.5	33.3	12.5	68.8
2. Student preference	73.1	75.4	100.0	75.0	69.7	69.4	75.0	100.0	63.6	88.9	76.0	75.0
3. Parental preference	14.1	4.3	20.0	25.0	18.2	5.6	0.0	0.0	9.1	0.0	12.0	0.0
4. Other	15.4	8.7	20.0	0.0	21.2	11.1	0.0	0.0	9.1	11.1	12.0	6.3

*Unweighted data.

**Type of school to which students are sent; this may or may not be (but probably is not) the type of school in which the counselor is located.

factor in making curriculum recommendations. In each case, student records are second, and parental preferences third. Women both in feeder schools and vocational schools are more likely than their male colleagues to indicate student records, while the men are more likely than the women to attend to parental preference. Reliance on student preference is the primary basis for making recommendations according to male and female counselors for each of the five kinds of vocational school as well as the schools from which their students come.

In sum, male and female counselors use very similar methods to bring vocational opportunities to the attention of their students, particularly at vocational schools. Female counselors are, however, more likely to use a 'first come, first served' approach to placement than are the men, with the latter relying on past achievement (feeder school counselors) or seriousness of interest (vocational school counselors) more than the women. Counselors of each sex use student preference as the dominant factor in making recommendations. Thus, in spite of a few disparities, the overall picture is that male and female counselors are quite similar in the methods they use to place students into vocational programs.

Table C.39 shows the number of male and female counselors indicating that there are special activities in their schools to attract nontraditional students. A greater proportion of women than men indicate that there are such activities, but the proportions are not different at the .10 level.

FACTORS AFFECTING STUDENT CHOICE

Tables C.40 and C.41 show, respectively, how students learned of the vocational programs in which they enrolled, and the persons having a major influence on their choices. The following observations emerge from a review of the tables:

- The most common ways of learning about vocational programs, according to student reports, are: from a counselor, by reading and asking on ones own, and from a friend. The percentage of women reporting that they have heard from each source is within two percentage points of the percentage of men reporting having heard from that source, with a single exception. Substantially more women than men (30.1% versus 24.5%) report having learned about their programs from a counselor.

Table C.39

ACTIVITIES TO ATTRACT NONTRADITIONAL STUDENTS

		Total	Type of School				
			Vocational High School	Comprehensive High School	Technical Institute	Junior College	Vocational Center
Vocational School Counselors							
Men	N	108	5	73	2	15	13
	% Yes[a]	32.4	40.0	28.8	50.0	33.3	46.2
Women	N	76	6	55	1	11	3
	% Yes	44.7	33.3	50.9	0.0	27.3	33.3
Feeder School Counselors							
Men	N	75	4	32	4	10	25
	% Yes	37.3	75.0	37.5	0.0	40.0	36.0
Women	N	67	4	34	4	9	16
	% Yes	40.3	50.0	41.2	25.0	44.4	37.5

[a] Percentage of those responding answering 'yes.' Thus, for example, 35 of the 108 male vocational school counselors (32.4%) answered 'yes.'

Table C.40

HOW STUDENTS LEARNED OF THEIR SCHOOL PROGRAM

Men N = 1,475
Women N = 1,519

Source of Information	Percentage of Students Giving Each Response	
Through School Recruitment	Men %	14.2
	Women %	13.8
From a Friend	Men %	25.5
	Women %	25.4
From Vocational Instructor	Men %	12.5
	Women %	13.8
From a Counselor	Men %	24.5
	Women %	30.1
From Parents	Men %	7.3
	Women %	6.5
Reading and Asking	Men %	26.2
	Women %	25.5
Other Source	Men %	23.2
	Women %	22.1

Table C.41

PERSON MOST INFLUENCING OCCUPATIONAL CHOICE ACCORDING TO STUDENTS

Men N = 1,465

Women N = 1,517

Person Having Greatest Influence	Percentage of Students Giving Each Response	
Mother	Men %	5.5
	Women %	10.5
Father	Men %	6.7
	Women %	2.8
Brother	Men %	2.0
	Women %	1.3
Sister	Men %	.9
	Women %	2.9
Friends	Men %	4.7
	Women %	5.3
Counselor	Men %	7.4
	Women %	7.4
Teacher	Men %	4.8
	Women %	4.0
Spouse	Men %	.5
	Women %	.7
I Make My Own Decisions	Men %	63.9
	Women %	61.8
Other	Men %	3.5
	Women %	3.2

- Well over half of both male and female students indicate that they themselves are the persons having the most influence on vocational program choices--61.8% for women, 63.9% for men. Women and men are within one percentage point of each other in reporting the primary influence to be brothers, friends, counselors, teachers, and husbands or wives. However, women were more likely to specify their mothers or sisters to be the primary influence--10.5% as against 5.5% for men in the former case, 2.9% as against 0.9% for men in the latter. Conversely, men were more likely to specify the father as the primary influence--6.7% as against 2.8% for women.

- After themselves, students generally credit counselors and parents with the greatest influence on their career choices. Thus, according to students, the school staff rival family members as influences on career choices.

In sum, there appear to be practically no differences between the sexes in the way students learn about their programs. Similarly, school personnel seem to exert the same amount of influence on men as on women. However, some family members do have a different amount of influence on men and women, which difference follows sexual lines. At the same time, students clearly indicate that school staff have an influence roughly equivalent to that of family members. The school is not, then, outclassed by family and friends as an influence, according to these data. How many of those boldly proclaiming independence can be (or are) influenced by the school is a matter of conjecture.

Subpart II.C: Effects on Students of the Attitudes or Actions of School Personnel

In this subpart, we discuss, in turn:

- The student sample
- School actions and school personnel's attitudes
- Efforts to influence students regarding nontraditional enrollment

THE STUDENT SAMPLE

Before delving further into findings with respect to factors related to nontraditional enrollment, and other matters of concern with respect to students, it is desirable to look at some basic characteristics of the student sample. Table C.42a shows what the sample is like in terms of sex of students, ethnic category, type of school, and whether the student's occupational area is traditional, nontraditional, or unstereotyped (mixed) with respect to sex. It can be observed that the sample contains a good representation of nontraditional students as well as students of different ethnic backgrounds.

Table C.42b shows corresponding data for the national population of vocational students; it was obtained by appropriate weighting of the students in the sample.*

SCHOOL ACTIONS AND SCHOOL PERSONNEL'S ATTITUDES

This discussion is in two parts:

- A discussion of student awareness of special programs emphasizing nontraditional possibilities in relation to decisions regarding traditional or nontraditional enrollment.
- Correlational analysis of the relation of the factors discussed above, and other attitudinal and procedural factors, to nontraditional enrollment.

Special Programs and Student Awareness of Them

As reported earlier, instructors and counselors were asked about whether the school offers special programs or activities to (1) alert students to potential sex inequities and to employee rights, or (2) to encourage them to enroll in nontraditional programs. These two staff questions have their counterparts in questions asked the student. Comparison of responses to these questions for staff and students in the same school gives some indication of how effectively the existence of such programs,

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*See Appendix C.1 for details.

Table C.42a

NUMBER OF STUDENTS IN SAMPLE, BY SEX, ETHNIC CATEGORY, KIND OF SCHOOL, AND SEX-STEREOTYPING OF OCCUPATIONAL PROGRAM

Occupational Program (Stereotyping by Sex)	Ethnic Category of Students	NO. OF STUDENTS																	
		Male Students						Female Students						All Students					
		Comp. High Sch.	Voc. High Sch.	Voc. Center	Tech. Institute	Jr. College	TOTAL	Comp. High Sch.	Voc. High Sch.	Voc. Center	Tech. Institute	Jr. Col. lege	TOTAL	Comp. High Sch.	Voc. High Sch.	Voc. Center	Tech. Institute	Jr. College	TOTAL
Traditionally Male	White (other than Hispanic)	449	36	152	17	78	733	97	2	51	4	38	192	546	38	203	21	116	925
	Black (other than Hispanic)	104	28	26	6	11	175	15	11	6	2	2	36	119	39	32	8	13	211
	Hispanic	17	8	6	1	9	4	10	4	1	0	1	16	27	12	7	1	10	57
	American Indian or Alaskan	10	4	3	0	1	18	1	1	0	0	2	4	11	5	3	0	3	22
	Asian or Pacific Islander	20	0	2	0	3	25	5	0	0	0	1	6	25	0	2	0	4	31
	Other or unspecified	3	0	0	1	0	4	0	0	0	0	0	0	3	0	0	1	0	4
	Total	603	76	189	25	102	996	128	18	58	6	44	254	731	94	247	31	146	1250
Mixed	White (other than Hispanic)	182	2	44	6	51	285	273	3	66	9	43	394	455	5	110	15	94	679
	Black (other than Hispanic)	72	4	14	4	7	101	92	21	17	2	5	137	164	25	31	6	12	238
	Hispanic	11	5	2	0	5	23	11	2	4	1	4	22	22	7	6	1	9	45
	American Indian or Alaskan	3	0	0	0	0	3	9	0	0	0	0	9	12	0	0	0	0	12
	Asian or Pacific Islander	11	1	0	0	4	16	13	0	1	0	4	18	24	1	1	0	8	34
	Other or unspecified	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
	Total	279	12	60	10	67	428	399	26	88	12	56	581	678	38	148	22	123	1009
Traditionally Female	White (other than Hispanic)	68	2	18	2	24	114	378	18	84	12	54	546	446	20	102	14	78	660
	Black (other than Hispanic)	47	5	6	6	6	71	127	11	26	23	8	197	174	16	32	29	14	268
	Hispanic	8	0	0	0	2	10	29	1	11	1	9	51	37	1	11	1	11	61
	American Indian or Alaskan	6	0	0	0	1	7	6	0	1	0	0	7	12	0	1	0	1	14
	Asian or Pacific Islander	6	0	0	0	1	7	17	0	3	2	0	22	23	0	3	2	1	29
	Other or unspecified	2	0	0	0	0	2	1	0	2	0	0	3	3	0	2	0	0	5
	Total	137	7	24	8	34	211	558	30	127	38	71	826	695	37	151	46	105	1037
TOTAL	White (other than Hispanic)	699	40	214	25	153	1132	748	23	201	25	135	1132	1447	63	415	50	288	2264
	Black (other than Hispanic)	223	37	46	16	24	347	234	43	49	27	15	370	457	80	95	43	39	717
	Hispanic	36	13	8	1	16	74	50	7	16	2	14	89	86	20	24	3	30	163
	American Indian or Alaskan	19	4	3	0	2	28	16	1	1	0	2	20	35	5	4	0	4	48
	Asian or Pacific Islander	37	1	2	0	8	48	35	0	4	2	5	46	72	1	6	2	13	94
	Other or unspecified	5	0	0	1	0	6	2	0	2	0	0	4	7	0	2	1	0	10
	Total	1019	95	273	43	203	1635	1085	74	273	56	171	1661	2104	169	546	99	374	3296*

*Plus about a half-dozen students who could not be classified, on account of missing data with respect to sex or ethnic category of the student or type of school attended, or some combination of these.

Table C.42b

ESTIMATED NUMBER OF VOCATIONAL STUDENTS IN NATIONAL POPULATION**,
BY SEX, ETHNIC CATEGORY, KIND OF SCHOOL, AND SEX STEREOTYPING OF OCCUPATIONAL PROGRAMS

Occup. Program (Stereo. by Sex)	Ethnic Category of Student	ESTIMATED NUMBER OF STUDENTS IN POPULATION																	
		MALE STUDENTS						FEMALE STUDENTS											
		Comp. H.S.	Voc. H.S.	Voc. Center	Tech. Inst.	Jr. College	Total	Comp. H.S.	Voc. H.S.	Voc. Center	Tech. Inst.	Jr. College	Total	Comp. H.S.	Voc. H.S.	Voc. Center	Tech. Inst.	Jr. College	Total
Trad. Male	White (non-Hispanic)	546,891	27,579	182,259	76,748	222,530	1,056,007	35,919	192	16,099	1,888	39,103	93,801	582,810	27,771	198,358	78,636	261,633	1,149,208
	Black (non-Hispanic)	96,781	4,538	36,717	25,632	20,389	184,057	8,482	150	2,544	1,548	1,515	14,239	105,263	4,688	39,261	27,180	21,904	198,296
	Hispanic	11,801	3,643	2,439	38	42,868	60,789	1,970	124	158	*	273	2,525	13,771	3,767	2,597	38	43,141	63,314
	Am. Ind. or Nat. Alask.	5,366	1,523	1,415	*	2,190	10,494	133	87	*	*	*	221	5,499	1,610	1,415	*	2,191	10,715
	Asian or Pacific Is.	7,763	929	2,704	*	264	11,660	232	279	*	*	218	729	7,995	1,208	2,704	*	482	12,389
	Total	668,602	38,212	225,534	102,418	228,241	1,323,007	46,736	832	18,801	3,436	41,710	111,515	715,338	39,044	244,335	105,854	329,351	1,433,522
Mixed	White (non-Hispanic)	126,754	25	9,707	34,052	49,707	220,245	226,200	75	40,585	45,302	68,777	380,939	352,954	100	50,292	79,354	181,484	601,184
	Black (non-Hispanic)	31,885	795	2,032	7,720	5,571	48,003	45,482	2,761	8,509	1,197	1,771	59,720	77,367	3,556	10,541	8,917	7,342	107,723
	Hispanic	10,571	2,349	240	*	23,878	37,038	12,435	359	1,327	76	1,651	15,848	23,006	2,708	1,567	76	25,529	52,886
	Am. Ind. or Nat. Alask.	345	*	*	*	*	345	5,626	*	*	*	*	5,626	5,971	*	*	*	*	5,971
	Asian or Pacific Is.	7,250	186	*	*	1,761	9,197	7,428	372	171	*	12,386	20,357	14,678	558	171	*	14,147	29,554
	Total	176,805	3,355	11,979	41,772	80,917	314,828	297,171	3,567	50,592	46,575	84,585	482,490	473,976	6,922	62,571	88,347	215,502	797,318
Trad. Female	White (non-Hispanic)	69,727	278	4,961	1,057	22,103	98,126	518,484	2,417	72,276	56,835	180,717	831,729	588,211	2,695	77,237	58,892	202,820	929,855
	Black (non-Hispanic)	23,029	127	1,361	7,531	1,124	33,172	145,326	891	36,019	34,326	24,040	240,602	168,355	1,018	37,380	41,857	25,164	273,774
	Hispanic	7,632	*	*	*	2,544	10,176	49,469	22	1,274	151	43,908	94,824	57,101	22	1,274	151	46,452	105,000
	Am. Ind. or Nat. Alask.	3,719	*	*	*	*	3,720	11,642	*	220	*	*	11,862	15,361	*	220	*	*	15,582
	Asian or Pacific Is.	2,198	279	*	*	*	2,478	23,198	494	2	151	*	23,815	25,396	743	*	151	*	26,293
	Total	106,305	684	6,322	8,588	25,773	147,672	748,119	3,794	109,791	92,463	248,665	1,202,832	854,423	4,479	116,113	101,051	274,438	1,350,504
TOTAL	White (non-Hispanic)	743,372	27,882	196,926	111,857	344,339	1,424,376	780,606	2,684	128,959	105,024	289,197	1,306,468	1,523,976	30,566	325,885	216,881	633,536	2,730,844
	Black (non-Hispanic)	151,694	5,461	40,110	40,684	27,084	265,033	199,291	3,801	47,473	37,071	27,326	314,962	350,985	9,262	87,583	77,755	54,410	579,995
	Hispanic	30,003	5,992	2,679	38	69,289	108,001	63,875	505	2,759	227	45,832	113,198	93,878	6,497	5,438	265	115,121	221,199
	Am. Ind. or Nat. Alask.	9,430	1,523	1,415	*	2,191	14,559	17,400	87	220	*	*	17,708	26,830	1,610	1,635	*	2,192	32,267
	Asian or Pacific Is.	17,211	1,393	2,706	*	2,026	23,334	30,858	1,115	173	151	12,604	44,901	48,069	2,508	2,877	151	14,630	68,235
	Total	951,710	42,251	243,834	152,579	444,929	1,835,303	1,092,028	8,192	179,584	142,473	374,960	1,797,237	2,043,738	50,443	423,418	295,052	819,889	3,632,540***

*Too small to estimate.

**Estimated from sample by applying weights given by Formula 2a in Appendix C1 to students in sample.

***Plus 3,641 unclassified cases (in population).

where they exist, is communicated to the students. For purposes of this analysis the two staff questions were recoded in accordance with the following procedure:

Score	Response
3	A response indicating formal implementation had at least begun
1	A response indicating that only informal implementation had begun
0	Any other response

The average of counselor scores and average of instructor scores were then added, and rounded to the nearest whole number, to get an indication of whether the school was actually offering these special programs. The possible range of these sums is 0 to 6. The following interpretations of these scores are suggested:

Is a program offered that is sufficiently structured that the students should be aware of it?

6	Yes
5	Almost certainly
4	Probably
3	Maybe
2	Probably not
1	Almost certainly not
0	No

Not one school got the maximum score, 6, which would have indicated almost perfect unanimity that the school offered the specified kind of program.

Tables C.43a and C.44a provide alternate ways of looking at the agreement between school scores, thus defined, and the response of students when asked whether there was a program to alert them to inequities and employee rights. The former begins by grouping students according to the type of response they gave, and then finding what percentage of students, thus grouped, are in schools with each of the scores from '0' to '5'. For example, Table C.43a shows that 6.7% of male students who said 'yes' and could identify a program were enrolled in schools with a score of '5', that is, in schools that almost certainly had such a program. By contrast,

Table C.43a

STUDENTS' INFORMATION ABOUT WHETHER SCHOOL OFFERS PROGRAM TO ALERT THEM ABOUT INEQUITIES AND EMPLOYEE RIGHTS

(Distribution in terms of what the school actually does)

Program in Which Student Is Enrolled	Student's Reply About Whether Program is Offered	MALE STUDENTS										FEMALE STUDENTS									
		Wtd. % (% of total N′)								Total Wtd. No.* (N′)	Total Raw No. (N) (Approx.)	Wtd. % (% of total N′)								Total Wtd. No.* (N′)	Total Raw No. (N) (Approx.)
		Does the school offer this program?							Total			Does the school offer this program?							Total		
		Don't Know	0 No	1 Almost Certainly Not	2 Probably	3 Maybe	4 Probably	5 Almost Certain				Don't Know	0 No	1 Almost Certainly Not	2 Probably Not	3 Maybe	4 Probably	5 Almost Certain			
Traditional	a. Yes (can identify)	7.2	5.4	32.5	28.7	17.6	3.4	5.2	100.0	2,740		1.1	8.4	28.0	25.2	13.9	.8	14.6	100.0	2,329	
	b. Yes (cannot identify)	6.3	4.3	38.7	29.9	8.7	.3	11.8	100.0	3,171		10.2	2.6	30.3	32.0	11.7	7.6	5.6	100.0	1,745	
	c. Uncertain	3.5	19.9	39.1	19.3	13.2	4.8	.2	100.0	593		2.7	12.6	28.5	21.8	15.0	.2	19.2	100.0	639	
	d. No	12.4	5.2	29.2	34.5	10.4	5.1	3.2	100.0	13,133		7.9	6.0	30.7	28.0	14.8	2.8	9.8	100.0	12,332	
	TOTAL	10.4	5.6	31.5	32.5	11.2	4.0	4.8	100.0	19,637	996	8.1	6.3	30.2	27.8	14.3	2.9	10.4	100.0	17,045	826
Mixed	a. Yes (can identify)	1.8	.0	31.9	29.1	11.6	9.0	16.6	100.0	699		12.4	17.2	21.9	29.8	6.6	3.1	9.0	100.0	1,115	
	b. Yes (cannot identify)	1.6	1.2	60.9	22.0	4.7	5.0	4.6	100.0	524		11.4	9.7	17.2	26.9	26.5	2.7	5.6	100.0	1,301	
	c. Uncertain	45.8	.0	12.2	2.2	35.0	4.8	.0	100.0	221		3.9	3.3	15.3	20.3	23.0	3.3	30.9	100.0	377	
	d. No	11.9	4.3	23.2	34.9	14.7	2.6	8.4	100.0	4,465		12.3	8.3	19.3	32.2	11.0	4.3	12.6	100.0	4,557	
	TOTAL	11.0	3.4	27.2	31.8	14.2	3.7	8.7	100.0	5,909	428	11.7	9.7	19.1	30.3	13.7	3.7	11.8	100.0	7,350	581
Non-traditional	a. Yes (can identify)	.6	16.9	43.6	31.0	4.6	2.3	1.0	100.0	482		2.5	.6	21.7	21.1	13.1	26.4	14.6	100.0	168	
	b. Yes (cannot identify)	.0	17.9	50.8	13.5	17.2	.6	.0	100.0	297		18.1	.9	42.5	9.0	23.3	5.4	.8	100.0	249	
	c. Uncertain	61.3	.0	11.3	13.1	14.3	.0	.0	100.0	161		.0	.0	36.3	23.0	40.7	.0	.0	100.0	110	
	d. No	.4	15.0	29.9	32.3	11.4	2.4	8.6	100.0	1,358		6.1	2.9	22.1	40.9	16.4	6.6	5.0	100.0	1,350	
	TOTAL	4.6	14.8	34.2	28.2	10.9	2.0	5.3	100.0	2,298	211	7.0	2.2	25.6	33.9	18.5	7.8	5.0	100.0	1,877	254
All Groups Combined	a. Yes (can identify)	5.4	5.8	33.8	29.1	14.9	4.3	6.7	100.0	3,921		9.8	10.7	25.9	26.5	11.6	2.7	12.8	100.0	3,612	
	b. Yes (cannot identify)	5.2	4.9	42.6	27.6	8.8	.9	10.0	100.0	3,992		11.3	5.3	26.0	28.3	18.4	5.5	5.2	100.0	3,295	
	c. Uncertain	22.6	12.1	28.5	14.4	18.3	4.0	.1	100.0	975		2.8	8.2	25.0	21.4	20.2	1.2	21.2	100.0	1,126	
	d. No	11.4	5.7	27.9	34.4	11.5	4.3	4.8	100.0	18,956		8.9	6.4	27.2	30.1	13.9	3.4	10.1	100.0	18,239	
	TOTAL	10.1	5.8	30.9	32.0	11.8	3.8	5.6	100.0	27,844	1,635	9.0	6.9	26.8	29.0	14.4	3.5	10.4	100.0	26,272	1,661

*N′ - No. of students in schools in school sample. Note that this number is much smaller than the number of students in schools in the school population, and much larger than the number of students in the student sample.

Table C.43b

STUDENTS' INFORMATION ABOUT WHETHER SCHOOL OFFERS PROGRAM TO ENCOURAGE NONTRADITIONAL ENROLLMENT

(Distribution in terms of what the school actually does)

Program in Which Student Is En-Rolled	Student's Reply About Whether Program is Offered	MALE STUDENTS										FEMALE STUDENTS									
		Wtd. % (% of total N´)								Total Wtd. No.* (N´)	Total Raw No. (N) (Approx.)	Wtd. % (% of total N´)								Total Wtd. No.* (N´)	Total Raw No. (N) (Approx.)
		Does the school offer this program?							Total			Does the school offer this program?							Total		
		Don't Know	0 No	1 Al-most Cert. Not	2 Prob. Not	3 Maybe	4 Prob.	5 Al-most Cert.				Don't Know	0 No	1 Al-most Cert. Not	2 Prob. Not	3 Maybe	4 Prob.	5 Al-most Cert.			
Trad.	a. Yes (can identify)	6.1	.0	9.9	28.8	27.0	23.0	5.2	100.0	2027		6.8	.0	10.7	8.6	43.1	8.8	22.0	100.0	1298	
	b. Yes (cannot identify)	3.0	1.4	7.3	29.2	43.7	15.0	.4	100.0	1172		4.3	1.5	3.3	32.7	34.8	10.5	12.9	100.0	1780	
	c. Uncertain	18.8	.0	19.4	29.0	15.2	17.6	.0	100.0	272		8.5	.0	14.4	32.4	35.8	1.5	7.4	100.0	350	
	d. No	6.2	1.1	13.9	29.4	24.0	16.8	8.6	100.0	16133		2.9	.8	13.9	32.8	23.6	13.0	13.0	100.0	13616	
	TOTAL	6.2	1.0	13.1	29.3	25.4	17.4	7.6	100.0	19604	996	3.4	.8	12.5	31.0	26.5	12.2	13.6	100.0	17044	826
Mixed	a. Yes (can identify)	.8	.0	5.0	63.9	17.0	2.8	10.5	100.0	700		2.5	.0	7.3	18.7	23.0	8.5	40.0	100.0	1112	
	b. Yes (cannot identify)	3.3	.0	2.9	16.2	28.0	43.2	6.4	100.0	276		9.0	2.0	11.4	24.7	36.8	2.5	13.6	100.0	407	
	c. Uncertain	.0	.0	6.5	1.4	71.8	9.3	11.0	100.0	97		.0	.0	2.5	16.3	10.9	.4	69.9	100.0	141	
	d. No	.7	.0	13.8	27.6	23.8	14.5	19.6	100.0	4836		3.2	.4	16.5	24.8	30.1	11.3	13.7	100.0	5681	
	TOTAL	.8	.0	12.1	31.0	24.0	14.4	17.7	100.0	5909	428	3.4	.4	14.5	23.7	29.0	10.2	18.8	100.0	7341	581
Non-trad.	a. Yes (can identify)	.3	.0	7.5	34.8	32.8	12.6	12.0	100.0	316		1.0	.0	5.6	5.6	10.8	33.3	43.7	100.0	302	
	b. Yes (cannot identify)	.0	.0	2.1	6.8	56.3	28.5	6.3	100.0	153		.0	.0	1.4	29.7	48.5	20.4	.0	100.0	166	
	c. Uncertain	4.9	.0	.0	90.2	4.9	.0	.0	100.0	21		.0	.0	6.6	79.5	.0	8.0	5.9	100.0	34	
	d. No	.3	.0	26.6	19.6	29.2	14.4	9.9	100.0	1808		9.3	.6	4.2	30.7	37.6	15.9	1.7	100.0	1376	
	TOTAL	.3	.0	22.1	21.4	31.4	14.9	9.9	100.0	2298	211	7.0	.4	4.2	27.4	33.7	18.9	8.4	100.0	1878	254
ALL GROUPS COM-BINED	a. Yes (can identify)	4.3	.0	8.5	37.5	25.3	17.3	7.1	100.0	3043		4.4	.0	8.8	12.4	31.2	11.4	31.8	100.0	2712	
	b. Yes (cannot identify)	2.8	1.0	6.0	24.9	42.2	21.1	2.0	100.0	1601		4.8	1.5	4.6	31.1	36.1	9.8	12.1	100.0	2353	
	c. Uncertain	13.4	.0	15.2	25.4	28.7	14.6	2.7	100.0	390		5.7	.0	10.7	31.1	26.8	1.6	24.1	100.0	525	
	d. No	4.5	.7	14.9	28.3	24.4	16.2	11.0	100.0	22777		3.4	.7	13.9	30.5	26.3	12.7	12.5	100.0	20673	
	TOTAL	4.5	.7	13.7	29.0	25.6	16.6	9.9	100.0	27811	1635	3.7	.7	12.5	28.6	27.7	12.1	14.7	100.0	26263	1661

*N´ = No. of students in schools in school sample. Note that this number is much smaller than the number of students in schools in the school population, and much larger than the number of students in the student sample.

Table C.44a

LIKELIHOOD THAT SCHOOL OFFERS PROGRAM TO ALERT STUDENTS TO INEQUITIES AND EMPLOYEE RIGHTS

(Distribution in terms of degree of students' belief that such a program exists)

Program in Which Student Is Enrolled	Does the School Offer a Program to Alert Students to Inequities and Employee Rights	MALE STUDENTS							FEMALE STUDENTS						
		Wtd. % (% of Total N´)					Total Wtd. No.* (N´)	Total Raw No. (N) (Approx.)	Wtd. % (% of Total N´)					Total Wtd. No.* (N´)	Total Raw No. (N) (Approx.)
		Student's Reply to Question About Whether Program Is Offered				Total			Student's Reply to Question About Whether Program Is Offered				Total		
		No	Un-cert.	Yes: Cannot Ident.	Yes: Does Ident.				No	Un-cert.	Yes: Cannot Ident.	Yes: Does Ident.			
Trad.	5 Almost certainly	44.7	.1	40.1	15.1	100.0	936		68.4	6.9	5.5	19.2	100.0	1766	
	4 Probably	83.6	3.6	1.0	11.8	100.0	795		69.0	.2	26.8	4.0	100.0	497	
	3 Maybe	61.9	3.6	12.5	22.0	100.0	2199		74.5	3.9	8.3	13.3	100.0	2442	
	2 Probably not	71.1	1.8	14.8	12.3	100.0	6387		72.9	2.9	11.8	12.4	100.0	4740	
	1 Almost certainly not	62.1	3.7	19.8	14.4	100.0	6185		73.6	3.5	10.2	12.7	100.0	5151	
	0 No	63.0	10.8	12.7	13.5	100.0	1090		69.9	7.5	4.3	18.3	100.0	1066	
	Don't know	79.6	1.0	9.8	9.6	100.0	2045		70.5	1.2	12.9	15.4	100.0	1382	
	TOTAL	66.9	3.0	16.1	14.0	100.0	19637	996	72.4	3.7	10.2	13.7	100.0	17045	826
Mixed	5 Almost certainly	72.8	.0	4.7	22.5	100.0	515		66.5	13.5	8.4	11.6	100.0	865	
	4 Probably	54.1	4.9	12.1	28.9	100.0	218		70.3	4.5	12.6	12.6	100.0	276	
	3 Maybe	78.2	9.2	3.0	9.6	100.0	838		49.8	8.6	34.3	7.3	100.0	1006	
	2 Probably not	82.8	.3	6.1	10.8	100.0	1883		66.0	3.4	15.7	14.9	100.0	2225	
	1 Almost certainly not	64.5	1.7	19.9	13.9	100.0	1606		62.6	4.1	15.9	17.4	100.0	1404	
	0 No	96.8	.0	3.2	.0	100.0	198		53.5	1.8	17.7	27.0	100.0	711	
	Don't know	81.2	15.5	1.3	2.0	100.0	651		65.1	1.7	17.2	16.0	100.0	862	
	TOTAL	75.6	3.7	8.9	11.8	100.0	5909	428	62.0	5.1	17.7	15.2	100.0	7350	581
Non-trad.	5 Almost certainly	96.0	.0	.0	4.0	100.0	122		71.9	.0	2.1	26.0	100.0	94	
	4 Probably	71.9	.0	3.7	24.4	100.0	45		60.6	.0	9.2	30.2	100.0	147	
	3 Maybe	61.7	9.1	20.3	8.9	100.0	251		64.1	12.9	16.7	6.3	100.0	347	
	2 Probably not	67.4	3.3	6.2	23.1	100.0	649		86.9	4.0	3.5	5.6	100.0	635	
	1 Almost certainly not	51.7	2.3	19.2	26.8	100.0	786		62.1	8.3	22.0	7.6	100.0	480	
	0 No	60.3	.0	15.7	24.0	100.0	339		92.3	.0	5.3	2.4	100.0	42	
	Don't know	4.7	92.5	.0	2.8	100.0	106		62.7	.0	34.1	3.2	100.0	132	
	TOTAL	59.1	7.0	12.9	21.0	100.0	2298	211	71.9	5.9	13.2	9.0	100.0	1877	254
ALL GROUPS COMBINED	5 Almost certainly	57.8	0.1	25.4	16.7	100.0	1573		67.9	8.8	6.3	17.0	100.0	2725	
	4 Probably	77.0	3.7	3.4	15.9	100.0	1057		68.0	1.5	19.7	12.8	100.0	920	
	3 Maybe	66.0	5.4	10.7	17.8	100.0	3288		67.0	6.0	16.0	11.0	100.0	3796	
	2 Probably not	73.3	1.6	12.4	12.8	100.0	8919		72.0	3.2	12.3	12.5	100.0	7601	
	1 Almost certainly not	61.6	3.2	19.8	15.4	100.0	8577		70.5	4.0	12.2	13.3	100.0	7035	
	0 No	66.6	7.3	12.1	14.0	100.0	1627		64.0	5.1	9.5	21.4	100.0	1819	
	Don't know	77.1	7.9	7.5	7.6	100.0	2803		68.1	1.3	15.7	14.9	100.0	2375	
	TOTAL	68.1	3.5	14.3	14.1	100.0	27844	1635	69.4	4.3	12.5	13.8	100.0	26272	1661

*N´ = No. of students in schools in school sample. (See corresponding footnote in Table C.43a or C.43b.)

Table C.44a begins by grouping students according to the score of their school and then seeing what percentage of students, thus grouped, gave each answer when questioned about the existence of programs to alert them to inequities and their rights as employees. For example, 16.75 of the male students enrolled in schools that got a score of '5' said 'yes' and could identify a program. Tables C.43b and C.44b provide similar information about the agreement of students and teachers on the question of whether or not there are special programs to encourage nontraditional enrollments.

The primary purpose of these tables is to present data on how well-informed the students in various categories are with respect to the existence of these special programs developed for their benefit. But before we investigate that point, let us find out how well-informed staff members are on exactly the same matter. Scores in the 2-to-4 range (the Table C.51a and C.51b columns for "2 = probably not," "3 = maybe," and "4 = probably") suggest the absence of good agreement among teachers and counselors concerning whether the school offers the special programs.*

The following facts emerge from a review of these tables:

- Over three-fifths of the students are in schools where even the staff is not really sure whether the school is doing anything formally to make students aware of potential inequities they may encounter when they enter the labor market and their rights in this regard. (Staff responded either 'don't know' or in the 2-4 range of probably not, maybe, or probably).
- About three-quarters of the students are in a school where there is a similar lack of staff information concerning activities to encourage nontraditional enrollment.
- Table C.44a shows that even in schools where there is almost certainly a program on sex inequities, fewer than half the students are aware of its existence.
- Dissemination of information about programs to encourage nontraditional enrollment seems somewhat better (see Table

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*The diagnosis of lack of agreement among staff members is definite for the schools where the score value is 3 or 4, though a little less definite when it is 2, in which case conceivably the actual situation in a few of the schools might be that the activity was "informally implemented."

> C.44b). Larger percentages of the students in schools where the programs almost certainly exist know about them, and the nontraditional students (particularly the female ones) are considerably more likely than the traditional students to be aware of these programs. Approximately 84% of the female students in nontraditional areas know that the program exists, if they are in a school where it does exist. Possibly (although we have no way of knowing) it was the encouragement program that led these students to go into nontraditional areas, a surmise which suggests that the programs to encourage nontraditional enrollment are having an effect. Females in schools which almost certainly offer such a program appear to be better informed of its existence than males in these schools.

Correlational Analyses

Table C.45a shows the intercorrelations (and also the means and standard deviations) of 11 school variables the first seven of which are school indexes or school means based on instructors' and counselors' responses to interview questions, the remaining four being school means or percentages for student variables. Descriptions of the 11 variables are presented in Figure C.9.*

There are 55 correlation coefficients in the table. Of these, 14 (about 25%) are significantly different from 0**, according to the conventional statistical test that assumes a simple random sample from an infinite population. But since ours was a stratified random sample, from a finite population, sampling errors are probably smaller, and the number of coefficients significantly different from 0 even larger than 14. Thus we feel justified in assuming that many of the relationships shown in Table C.45a are real ones, not just coincidences due to the vagaries of sampling. How-

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*To get a student score corresponding to staff question on programs to alert students to inequities and their rights as employees, two student questions--one on programs to alert students to inequities and a second on employee rights--were combined in such a way that a student who indicated that his or her school had either kind of program was given a score of 8 if able to identify at least one such program and 3 if unable to do so; the student received a score of 1 if uncertainty was indicated about at least one of the two kinds of programs and certainty about neither; and a score of 0 if there was a response of "no" to both questions.

**The 14 correlation coefficients are significant at the .05 level. Of these, 9 (or 16%) are significant at the .01 level, and 5 (or 9%) at the .001 level.

Table C.44b

LIKLIHOOD THAT SCHOOL OFFERS PROGRAM TO ENCOURAGE NONTRADITIONAL ENROLLMENT

(Distribution in terms of degree of students' belief that such a program exists)

Program in Which Student Is Enrolled	Does the School Offer a Program to Encourage Nontraditional Enrollment	MALE STUDENTS							FEMALE STUDENTS						
		Wtd. % (% of Total N′)					Total Wtd. No.* (N′)	Total Raw No. (N) (Approx.)	Wtd. % (% of Total N′)					Total Wtd. No.* (N′)	Total Raw No. (N) (Approx.)
		Student's Reply to Question About Whether Program Is Offered				Total			Student's Reply to Question About Whether Program Is Offered				Total		
		No	Un-cert.	Yes: Cannot Ident.	Yes: Does Ident				No	Un-cert.	Yes: Cannot Ident.	Yes: Does Ident.			
Trad.	5 Almost certainly	92.6	0.0	0.3	7.1	100.0	1489		76.6	1.1	9.9	12.4	100.0	2313	
	4 Probably	79.8	1.4	5.1	13.7	100.0	3412		85.2	0.3	9.0	5.5	100.0	2071	
	3 Maybe	77.9	0.8	10.3	11.0	100.0	4973		71.1	2.8	13.7	12.4	100.0	4514	
	2 Probably not	82.5	1.4	6.0	10.1	100.0	5761		84.8	2.1	11.0	2.1	100.0	5285	
	1 Almost certainly not	86.8	2.1	3.3	7.8	100.0	2576		88.3	2.4	2.8	6.5	100.0	2138	
	0 No	91.2	0.0	8.8	0.0	100.0	187		79.9	0.0	20.1	0.0	100.0	136	
	Don't know	82.5	4.2	3.0	10.3	100.0	1207		66.8	5.1	13.1	15.0	100.0	587	
	TOTAL	82.3	1.4	6.0	10.3	100.0	19604	996	79.9	2.1	10.4	7.6	100.0	17044	826
Mixed	5 Almost certainly	90.3	1.0	1.7	7.0	100.0	1048		56.5	7.2	4.0	32.3	100.0	1378	
	4 Probably	82.6	1.1	14.0	2.3	100.0	851		85.9	0.1	1.4	12.6	100.0	750	
	3 Maybe	81.3	4.9	5.4	8.4	100.0	1417		80.3	0.7	7.0	12.0	100.0	2129	
	2 Probably not	73.0	0.1	2.4	24.5	100.0	1829		81.0	1.3	5.8	11.9	100.0	1739	
	1 Almost certainly not	93.1	0.9	1.1	4.9	100.0	717		87.8	0.3	4.3	7.6	100.0	1066	
	0 No	--	--	--	--	--	0		74.2	0.0	25.8	0.0	100.0	31	
	Don't know	69.3	0.0	19.4	11.3	100.0	47		74.1	0.0	14.6	11.3	100.0	248	
	TOTAL	81.8	1.6	4.7	11.9	100.0	5909	428	77.4	1.9	5.5	15.2	100.0	7341	581
Non-trad.	5 Almost certainly	79.0	0.0	4.3	16.7	100.0	227		15.0	1.3	0.0	83.7	100.0	158	
	4 Probably	75.7	0.0	12.7	11.6	100.0	343		61.4	0.8	9.5	28.3	100.0	356	
	3 Maybe	73.5	0.1	12.0	14.4	100.0	720		82.1	0.0	12.7	5.2	100.0	631	
	2 Probably not	71.8	3.8	2.1	22.3	100.0	492		82.0	5.2	9.5	3.3	100.0	515	
	1 Almost certainly not	94.7	0.0	0.6	4.7	100.0	509		72.9	2.8	2.8	21.5	100.0	79	
	0 No	--	--	--	--	--	0		100.0	0.0	0.0	0.0	100.0	8	
	Don't know	71.4	14.3	0.0	14.3	100.0	7		97.7	0.0	0.0	2.3	100.0	131	
	TOTAL	78.7	0.9	6.7	13.7	100.0	2298	211	73.3	1.8	8.8	16.1	100.0	1878	254
ALL GROUPS COMBINED	5 Almost certainly	90.7	0.4	1.1	7.8	100.0	2765		66.9	3.3	7.4	22.4	100.0	3848	
	4 Probably	80.0	1.2	7.4	11.4	100.0	4605		82.7	0.3	7.3	9.7	100.0	3177	
	3 Maybe	78.1	1.6	9.5	10.8	100.0	7109		74.7	1.9	11.7	11.7	100.0	7274	
	2 Probably not	79.8	1.2	4.9	14.1	100.0	8082		83.6	2.2	9.7	4.5	100.0	7539	
	1 Almost certainly not	89.1	1.6	2.5	6.8	100.0	3802		87.8	1.7	3.3	7.2	100.0	3284	
	0 No	91.2	0.0	8.8	0.0	100.0	187		79.8	0.0	20.2	0.0	100.0	175	
	Don't know	82.0	4.1	3.6	10.3	100.0	1261		72.9	3.1	11.7	12.3	100.0	966	
	TOTAL	81.9	1.4	5.8	10.9	100.0	27811	1635	78.7	2.0	9.0	10.3	100.0	26263	1661

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*N′ = No. of students in schools in school sample. (See corresponding footnote in Table C.43a or C.43b.)

Figure C.9

DESCRIPTION OF THE 11 VARIABLES IN THE TABLE C.45a CORRELATION MATRIX

Variable No.	Name of Variable	Description of Variable
1	Activity index 3-1 (Internal Affirmative Action)	Information on whether or not the school is making an effort to reduce inequities in staffing patterns. Reports level of effort to hire nontraditional workers for administrative, teaching, and nonprofessional positions.
	Programs on:	
2	Inequities and employment rights	Reports level of implementation in terms of developing programs, activities, or curricula to make students aware of potential sex inequities in education and the labor force and their rights as employees.
3	Encouraging nontraditional enrollment	Reports level of implementation in terms of conducting programs or activities for students to make them aware of or encourage them to enter nontraditional programs.
	Rationalization of inequitable practices	
4	Instructor rationalization	These scores are based on the number of inequitable practices which the respondent says are sometimes justifiable. The range of possible scores is from 0 to 9.
5	Counselor rationalization	
	Perception of nontraditional students' acceptance	
6	Instructors' perception	School mean response on how well male and female nontraditional students are accepted.
7	Counselors' perception	
	Student awareness	
8	Inequities and employment rights	Student awareness of school's special programs represented by variables 2 and 3 above.
9	Encouraging nontraditional enrollment	
	Percentages of nontraditional enrollment	
10	$\%_{F(M)}$=female nontrad. enrollment	$\%_{F(M)}=\frac{\text{Female enrollment in trad. male occs.}}{\text{Total enrollment in trad. male occs.}} \times 100$
11	$\%_{M(F)}$=male nontrad. enrollment	$\%_{M(F)}=\frac{\text{Male enrollment in trad. female occs.}}{\text{Total enrollment in trad. female occs.}} \times 100$

ever, before embarking on a discussion of specific correlation coefficients we feel obliged to point out that all of them are comparatively low (or at least not really high) and that therefore none of them should be regarded as indicating anything more specific than tendencies; they certainly do not suggest tightly structured cause-and-effect relationships.

Intercorrelations among the first three variables, all of which represent instructors' and counselors' responses to questions about various actions the school might or might not be taking to combat inequities, are substantial. This indicates that if a school is taking a particular form of action to combat inequity it is likely also to be taking other actions with the same purpose. The possibility that a halo effect was operating was considered and rejected; the interview items comprising these variables were sufficiently explicit to combat such an effect. Thus it appears that schools that are taking any action to combat sex discrimination in their own staffing practices are also trying to combat sex-role stereotyping in the vocational fields for which their students prepare, and vice versa. Or to generalize a bit further, these correlations suggest that schools taking any action to combat sex inequities tend to be making a concerted across-the-board effort rather than just a token effort. It should be noted, however, that the number of schools taking such action is not as high as one might wish.

There is also evidence that what the schools are doing is having an effect, in terms of increasing the rate of nontraditional enrollment--particularly for female students. The correlation of variable number 1 (the school activity index for internal affirmative action) with female nontraditional enrollment (variable 10) is .42, the highest correlation with nontraditional enrollment.

Variables 2 and 3 (i.e., whether the school offers special programs on inequities or to encourage nontraditional enrollment) are correlated to the extent of .58 with each other, indicating that schools that are taking steps to encourage nontraditional enrollment are also trying to provide realistic advice concerning prejudice related to sex-role stereotyping, and to advise students as to what their rights are in this and related respects.

Some of the higher correlations are with variables representing instructors' and counselors' views, opinions, and attitudes. For instance, whether the school is offering a program on inequities is correlated (r = .34) with how well instructors think nontraditional students are accepted by classmates of the other sex. Counselors' views on the same matter (acceptance of nontraditional students) is correlated (r = .29) with programs to encourage nontraditional enrollment. These views of counselors and instructors might be regarded as indicative of fact (i.e., the actual degree of acceptance or rejection that nontraditional students experience from their classmates) or merely of counselors' and instructors' own biases. Our surmise is that the truth is a cross between these two interpretations.

At least one other of the correlations involving variable 3 deserves specific mention. When school personnel report the school is systematically encouraging nontraditional enrollment (variable 3), it is correlated (r = .28) with student reports of this activity. As was implied earlier, both student awareness and staff awareness of such programs leaves something to be desired; nevertheless there is enough of a relationship, in the expected direction, to produce a significant correlation (r = .28).

Variables 4 and 5 are counts of the number of nine practices representing discrimination on the basis of sex, that the instructor or counselor says are sometimes justified. These nine practices are:

- Rules and regulations denying admission to certain courses or programs on the basis of sex
- Quotas limiting the number of males or females admitted to certain courses or programs
- Unwritten understandings that some courses or programs are (were) for males and other courses for females, even though there is (was) no formal policy to that effect
- A tendency for the vocational school counselors to suggest traditional options to male and female students undecided as to a career
- A tendency for the vocational school counselors to discourage already interested students from entering nontraditional programs
- A reluctance by teachers to have nontraditional students in their courses
- A tendency to take the sex of the students into consideration in determining the type of work-study, cooperative education, or job placements provided for students.

On the assumption that all or almost all of these views are rationalizations, we have labeled the two variables "instructor rationalization" and "counselor rationalization" respectively. Judging from the lack of correlation of these rationalization variables with variables 10 and 11, negative attitudes on the part of counselors and instructors fortunately seem not to have a depressing effect on nontraditional enrollment. One reason may be that the extent of this kind of rationalization is relatively slight at least insofar as was indicated by instructors' and counselors' responses to interview questions. As is shown in the next-to-last column of Table C.45a, both instructors and counselors in the average school typically have a rationalization score of just under 1. In other words they tried to justify not more than one out of the nine types of discrimination.

Distributions of these rationalization variables are shown in Table C.46, separately for instructors and counselors, and within those two categories separately by sex. The data in this table for all instructors combined and for all counselors combined are not identical with the data on which Table C.45a is based; in Table C.45a the variables are school means, so that school is the "unit of analysis" whereas for the Table C.46 data the instructors and counselors themselves are the units of analysis.

Female nontraditional enrollment and male nontraditional enrollment have at least a slight positive correlation with each other, suggesting that the forces that are bringing about a breakdown in occupational sex-role stereotypes are reducing both kinds of stereotyping--the "traditional male role" and "the traditional female role."

Table C.45b presents additional correlational data bearing on the same central point as Table C.45a: the extent to which school actions and other factors are reflected in nontraditional enrollment. This table shows the correlation of each state-level and school-level activity index with percentages of female and male nontraditional enrollment (variables 10 and 11 respectively in the Table C.45a matrix). The following emerge from a review of these correlations:

- All but one of the School Level Activity Indexes correlate significantly with the proportion of nontraditional female students, at the .10 level.

Table C.45a

INTERCORRELATIONS AMONG 11 SCHOOL VARIABLES

(Based on the 88 schools*** with data on all 11 variables: N = 88)

	Variable → ↓	CORRELATION COEFFICIENTS*												
		1	2	3	4	5	6	7	8	9	10	11		
		School Activ. Index 3-1 (Int. affirm. action)	Programs for Students on:		School Staff Attitudes, Opinions				Student Awareness		Nontrad. Enrollment			
					Rationalization		Perceptive of Nontraditional Student Acceptance		Programs on:					
	VARIABLE**		Employment Rights	Nontrad. Enc.	Inst.	Couns.	Inst.	Couns.	Employment Rights	Nontrad. Enc.	$\%_{F(M)}$	$\%_{M(F)}$	$\bar{X}$	σ
	School Activity (as reported by instructors & counselors)													
1	Activity index 3-1. Internal affirmative action****		.38	.45	-.17	-.10	.16	.23	.05	.05	.42	.14	50.22	5.08
2	Program for students on inequities & employment rights			.58	-.16	.04	.34	.13	-.06	.17	.15	.00	1.80	1.19
3	Program for students encouraging nontraditional enrollment				-.17	-.03	.15	.29	.11	.28	.30	.19	2.52	1.13
	School Staff Attitudes and Opinions													
	Rationalization of inequitable practices													
4	Instructor rationalization					.11	-.22	.02	-.21	-.07	-.01	-.07	.90	.67
5	Counselor rationalization						.14	-.08	-.02	.09	.03	.11	.94	.90
	Perception of acceptance of nontraditional students													
6	Instructor perception							.08	.12	.13	-.02	.21	8.24	.60
7	Counselor perception								.10	.17	.20	.06	8.66	1.10
	Student Awareness*****													
	Aware of programs for students on:													
8	Inequities & employment rights									.29	-.01	.09	1.70	.87
9	Encouraging nontraditional enrollment										.05	.02	1.18	.83
	% Nontraditional Enrollment*****													
10	Females in traditionally male programs											.21	10.15	13.73
11	Males in traditionally female programs												13.19	20.80

*Levels of significance for correlation coefficients

Sig. Level	r
.10	.177
.05	.209
.02	.247
.01	.272
.001	.342

Fisher's z, 2-tailed test

**See Figure C.9 for description of variables in this matrix.

***Unweighted.

****See Appendix C.2 for details about activity indexes and subindexes.

*****Weighted to represent all students in the school (not just those in the sample interviewed).

Table C.45b

CORRELATION OF ACTIVITY INDEXES WITH NONTRADITIONAL ENROLLMENT[a]

Level of Index	Index Number	Name of Index		Index Statistics		Correlation With	
			n^a	$\bar{X}$	σ	Female Nontrad. Enroll. $Z_{F(M)}^c$	Male Nontrad. Enroll. $Z_{M(F)}^c$
State	1-1	Internal Affirmative Action	95	53.1	7.3	-.022	.077
	1-2	Incentives to Schools	95	53.7	5.0	-.178*	.154
	1-5	Teacher Training/Awareness	95	49.3	10.3	-.025	-.146
	1-7	Employer/Community Liaison	95	53.7	4.4	.154	-.032
	1-8	Title IX Review	95	50.3	8.2	.024	-.083
	1-9	Model Building/Research	95	51.3	4.8	-.046	.000
	1-10	Monitoring/Review/Data Collection	95	53.8	6.7	.071	-.051
	1-11	Financial Commitment to 104(b)(1)	95	51.8	10.7	-.050	.004
	1-12	Advisory Council	95	52.2	6.7	-.221**	-.036
	1-13	Sex Equity Coordinator	95	52.8	5.1	.062	-.004
	1-0	Overall State Activity	95	52.5	3.5	-.039	-.017
School	3-1	Internal Affirmative Action	100	50.0	5.0	.405*****	.165*
	3-3	Awareness/Support for Students	100	49.9	3.2	.194*	.255****
	3-4	Awareness/Support for Older Women	100	50.5	9.0	.185*	-.016
	3-5	Staff Awareness	91[b]	50.0	4.5	.203**	.062
	3-7	Employer/Community Liaison	100	49.9	4.4	.010	-.028
	3-8	Title IX Review	100	50.1	5.0	.287****	.209**
	3-0	Overall School Activity	100	50.0	3.0	.341*****	.174*

*p <.10, **p <.05, ***p <.02, ****p <.01, *****p <.001

[a] The unit of analysis is the school. Therefore, n = number of schools on which the correlation is based. Each correlation coefficient is based on all available pairs. For the state indexes, n=95, not 100, because 5 schools were in the state that declined to participate at the state level.

[b] This index is based on counselor response only; it is less than 100 because several schools in the sample lacked counselors.

[c] The notation has the same meaning as in Table C.45a.

Table C.46

DISTRIBUTION OF RATIONALIZATION SCORES
OF INSTRUCTORS AND COUNSELORS, BY SEX

Rationalization Score	Instructors			Counselors*		
	M	F	T	M	F	T
9	0	1	1			
8	1	0	1			
7	3	1	4			
6	6	1	7	1	1	2
5	4	3	7	3	1	4
4	17	5	22	0	2	2
3	17	9	26	8	3	11
2	44	35	79	12	11	23
1	117	77	194	37	17	54
0	221	151	372	50	42	92
N	430	283	713	111	77	188
$\bar{X}$	.95	.82	.90	.95	.87	.92
σ	1.41	1.24	1.35	1.23	1.27	1.24

*Feeder school counselors are not included.

Most of these are significant at well beyond that level. Among those significant at .10 are all of the activities whose primary intended beneficiaries are students: "awareness and support activities for students," "Title IX activities," and "awareness and support activities for older women." Also significant are correlations between enrollment and "internal affirmative action activities" and the "overall" index. Thus, it seems that schools that are making a concerted effort to enroll nontraditional students, to assure sex equity in student programming, and to eliminate discrimination in employment are also those in which enrollment of women in nontraditional occupations is highest.

What about the men? There are only four significant correlations between nontraditional male enrollment and School Level Activity Indexes. The largest correlations, however, do involve the "Title IX activities" index and the "awareness and support activities for students" index--the two that, on the face of it, would seem most likely to benefit male students.

The only index that shows no significant correlations with nontraditional enrollments is "employer/community liaison activities"

- Only two of the 22 correlations at the state level are significant at the .10 level. Most state level correlations have absolute values less than .10. The two significant correlations are negative--those between percentage of nontradtional female enrollment and the "advisory Council activities" and the "incentives to schools" indexes. These results do not seem to suggest a readily apparent pattern, and the overall impression is that state level activities are, to date, little related to nontraditional enrollment. Some of this is not truly surprising given that some of the indexes reflect requirements of P.L. 94-482, the data were collected rather soon after the Act went into effect. It may simply take more time for state efforts to have an impact on enrollment.

In sum, those schools with higher activity indexes seem also to be those with higher nontraditional enrollments. There are more significant correlations of the indexes with nontraditional female enrollment than with nontraditional male enrollment. However, those indexes reflecting activities aimed directly at students do correlate significantly with nontraditional male enrollment.

EFFORTS TO INFLUENCE STUDENTS REGARDING NONTRADITIONAL ENROLLMENT

In the course of the student interview, in an effort to find out something about factors that may have influenced students' choice of occupational field, a series of questions was asked about whether anyone had ever offered encouragement or discouragement concerning their enrolling in a nontraditional program.

Table C.47, which is in eight parts, presents a crosstabulation of the results separately by sex, and also further broken down in terms of the sex-role stereotyping of the occupational choice. These tables reveal that by far the largest group of students were neither encouraged nor discouraged

Table C.47

NUMBER AND PERCENTAGE OF STUDENTS ENCOURAGED AND/OR DISCOURAGED REGARDING TAKING NONTRADITIONAL COURSES, BY SEX AND TRADITIONAL/NONTRADITIONAL ENROLLMENT

Part a. Sex of respondents: Male
Occupation category: Traditionally male

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N Raw % Wtd %	762 77.0 79.4	2 0.2 0.1	44 4.5 4.3	808 81.7 83.8
	Not Sure	Raw N Raw % Wtd %	7 0.7 0.1	2 0.2 0.1	1 0.1 0.0	10 1.0 0.2
	Yes	Raw N Raw % Wtd %	140 14.2 13.1	0 0.0 0.0	31 3.1 2.9	171 17.3 16.9
TOTAL		Raw N Raw % Wtd %	909 91.9 92.6	4 0.4 0.2	76 7.7 7.2	989 100.0 100.0*

*Weighted N = 317,620

INTERPRETATION: For example, 762 male students in traditionally male areas were neither discouraged nor encouraged regarding nontraditional enrollment; 44 were discouraged, but not encouraged; 31 were both discouraged and encouraged.

Table C.47 (cont.)

Part b. Sex of respondents: Male
Occupation category: Not sex-stereotyped

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N	313	1	15	329
		Raw %	74.2	0.2	3.6	78.0
		Wtd %	83.0	0.4	1.3	84.6
	Not Sure	Raw N	1	0	0	1
		Raw %	0.2	0.0	0.0	0.2
		Wtd %	1.9	0.0	0.0	1.9
	Yes	Raw N	73	2	17	92
		Raw %	17.3	0.5	4.0	21.8
		Wtd %	9.7	1.9	1.9	13.5
TOTAL		Raw N	387	3	32	422
		Raw %	91.7	0.7	7.6	100.0
		Wtd %	94.6	2.2	3.2	100.0*

*Weighted N = 361,885

Table C.47 (cont.)

Part c. Sex of respondents: Male
Occupation category: Traditionally female

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N	111	1	21	133
		Raw %	53.1	0.5	10.0	63.6
		Wtd %	63.4	0.3	5.6	69.3
	Not Sure	Raw N	2	0	0	2
		Raw %	1.0	0.0	0.0	1.0
		Wtd %	0.7	0.0	0.0	0.7
	Yes	Raw N	60	1	13	74
		Raw %	28.7	0.5	6.2	35.4
		Wtd %	22.5	0.1	7.4	30.0
TOTAL		Raw N	173	2	34	209
		Raw %	82.8	1.0	16.2	100.0
		Wtd %	86.6	4	13.0	100.0*

*Weighted N = 149,943

Table C.47 (cont.)

Part d. Sex of respondents: Male
Occupation category: All combined

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N	1186	4	80	1270
		Raw %	73.2	0.2	4.9	78.3
		Wtd %	78.1	0.3	3.2	81.6
	Not Sure	Raw N	10	2	1	13
		Raw %	0.6	0.1	0.1	0.8
		Wtd %	1.0	0.0	0.0	1.0
	Yes	Raw N	273	3	61	337
		Raw %	16.9	0.2	3.8	20.9
		Wtd %	13.3	0.8	3.3	17.4
TOTAL		Raw N	1469	9	142	1620
		Raw %	90.7	0.5	8.8	100.0
		Wtd %	92.4	1.1	6.5	100.0*

*Weighted N = 829,448

Table C.47 (cont.)

Part e. Sex of respondents: Female
Occupation category: Traditionally female

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N	566	7	69	642
		Raw %	69.0	0.9	8.4	78.3
		Wtd %	67.6	0.8	9.9	78.3
	Not Sure	Raw N	4	1	0	5
		Raw %	0.5	0.1	0.0	0.6
		Wtd %	0.4	0.1	0.0	0.5
	Yes	Raw N	127	2	44	173
		Raw %	15.5	0.2	5.4	21.1
		Wtd %	15.4	0.4	5.4	21.2
TOTAL		Raw N	697	10	113	820
		Raw %	85.0	1.2	13.8	100.0
		Wtd %	83.4	1.3	15.3	100.0*

*Weighted N = 1,194,675

Table C.47 (cont.)

Part f. Sex of respondents: Female
Occupation category: Not sex-stereotyped

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N	372	0	52	424
		Raw %	64.9	0.0	9.1	74.0
		Wtd %	67.7	0.0	10.9	78.6
	Not Sure	Raw N	5	2	1	8
		Raw %	0.9	0.3	0.2	1.4
		Wtd %	0.8	0.4	0.0	1.2
	Yes	Raw N	111	1	29	141
		Raw %	19.4	0.2	5.0	24.6
		Wtd %	15.2	0.2	4.8	20.2
TOTAL		Raw N	488	3	82	573
		Raw %	85.2	0.5	14.3	100.0
		Wtd %	83.7	0.6	15.7	100.0*

*Weighted N = 476,672

Table C.47 (cont.)

Part g. Sex of respondents: Female
Occupation category: Traditionally male

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N	121	0	24	145
		Raw %	47.8	0.0	9.5	57.3
		Wtd %	57.5	0.0	6.7	64.2
	Not Sure	Raw N	1	0	1	2
		Raw %	0.4	0.0	0.4	0.8
		Wtd %	0.1	0.0	0.1	0.2
	Yes	Raw N	61	1	44	106
		Raw %	24.1	0.4	17.4	41.9
		Wtd %	16.7	0.0	18.9	35.6
TOTAL		Raw N	183	1	69	253
		Raw %	72.3	0.4	27.3	100.0
		Wtd %	74.3	0.0	25.7	100.0*

*Weighted N = 111,818

Table C.47 (cont.)

Part h. Sex of respondents: Female
Occupation category: All combined

			Received Discouragement?			TOTAL
			No	Not Sure	Yes	
Received Encouragement?	No	Raw N	1059	7	145	1211
		Raw %	64.3	0.5	8.8	73.6
		Wtd %	67.0	0.5	10.0	77.5
	Not Sure	Raw N	10	3	2	15
		Raw %	0.6	0.2	0.1	0.9
		Wtd %	0.5	0.2	0.0	9.7
	Yes	Raw N	299	4	117	420
		Raw %	18.2	0.2	7.1	25.5
		Wtd %	15.4	0.3	6.1	21.8
TOTAL		Raw N	1368	14	264	1646
		Raw %	83.1	0.9	16.0	100.0
		Wtd %	82.9	1.0	16.1	100.0*

*Weighted N = 1,783,165

by anyone at all about the possibility of going into a nontraditional occupation. About three-fourths of the male students and two-thirds of the female students reported this. However of those students who did receive advice, the majority report that they were given encouragement regarding taking courses in a nontraditional area. This is true for both sexes; and furthermore, it is true even for those who selected a traditional field.

About one in seven men (14%) and one in four women (25%) who chose nontraditional fields had been subjected to advice against this choice. The advice, obviously, did not deter them from enrolling, however it may have discouraged them from entering the field for which they are training. (Remember that the career plans of nontraditional students are more ambivalent than those of traditional students.) What about the students who made traditional choices? Were any of these choices attributable to advice against nontraditional choices? We don't know, of course, but we do know that only about one in seven (14%) of the female students who made traditional selections reports ever having received advice against nontraditional selections. The corresponding rate for male students is even lower--only about one in 13 (8%).

Although the rates of discouragement advice are quite low for those who made traditional choices, the absolute numbers of students involved are substantial. Considering the number of students who received negative advice about nontraditional fields and eventually selected a traditional or unstereotyped field to be the upper limit of the number who might have gone into a nontraditional field had it not been for advice against such a choice, we conclude that in the absence of the negative advice the nontraditional choices might have been about 23%* more numerous among male students, and 230%* more numerous among female students, than they actually were. It should be borne in mind, of course, that these are upper-limit estimates of the effects of negative advice, and that they depend on the obviously excessive assumption that such advice not only was 100% effective when given to someone seriously considering a nontraditional choice, but also that it was never wasted on anyone who had no thought of making such a choice.

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*The method by which these estimates were computed is explained in Appendix C.4.

As for those who did make nontraditional occupational choices, about one in seven of the male students and one in four of the female students did so in the face of contrary advice; and of those who made this choice despite negative advice about one-fourth of the female students and only slightly under half of the male students did so without even the benefit of receiving "pro-nontraditional" advice from some other source.

Who were the individuals from whom the students received advice? Recall that we inquired about nine possible sources:

1,2. Mother, father
3,4. Brother, sister
5. Friend
6. Counselor
7. Teacher
8. Spouse
9. "Other"

Results for these nine sources are presented in Table C.48 (8 parts) for the purveyors of encouragement and in Table C.49 for the purveyors of discouragement. These tables show not only who provided the advice but also what the recipient's reaction (self-reported) was--in other words whether the advice was appreciated, resented, or met with indifference.

It is clear from Tables C.48 and C.49 (and from Table C.50, which recapitulates some data extracted from them) that the chief sources of advice about nontraditional programs were friends, parents, and school personnel (counselors and teachers). It should be noted that more students report encouragement from school personnel than discouragement. With one minor exception, friends were by far the most frequent source of advice, both pro and con, on this matter for students of both sexes. The sole exception was that male students who made nontraditional choices were somewhat less likely to have received encouragement regarding this decision from their friends than from their teachers, counselors, and mothers.

After friends, the next most likely source of advice to male students regarding nontraditional programs was school personnel (counselors and teachers) with parents next (mothers being a little more likely to provide encouragement, and fathers discouragement). For female students, the next

Table C.48

HOW STUDENTS REACTED TO BEING ENCOURAGED TO GO INTO NONTRADITIONAL PROGRAMS

Part a. Sex of respondents: Male
Occupation category: Traditionally male

No. of Cases:*
N = 989
N' = 159

Encouraged by		Students Receiving Encouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	3	8	12	73	14.5	2.3
	Raw % of encouraged	13.0	34.8	52.2	100.0		
	Wtd % of encouraged	9.9	68.1	22.0	100.0		
Father	Raw N	0	4	9	13	8.2	1.3
	Raw % of encouraged	0.0	30.8	69.2	100.0		
	Wtd % of encouraged	0.0	65.6	34.4	100.0		
Brother	Raw N	0	0	3	3	1.9	0.3
	Raw % of encouraged	0.0	0.0	100.0	100.0		
	Wtd % of encouraged	0.0	0.0	100.0	100.0		
Sister	Raw N	1	1	7	9	5.7	0.9
	Raw % of encouraged	11.1	11.1	77.8	100.0		
	Wtd % of encouraged	7.0	5.0	88.0	100.0		
Friend	Raw N	4	23	24	51	32.1	5.2
	Raw % of encouraged	7.8	45.1	47.1	100.0		
	Wtd % of encouraged	4.4	37.7	57.9	100.0		
Counselor	Raw N	4	10	20	34	21.4	3.4
	Raw % of encouraged	11.8	29.4	58.8	100.0		
	Wtd % of encouraged	13.8	25.9	60.3	100.0		
Teacher	Raw N	4	10	24	38	23.9	3.8
	Raw % of encouraged	10.5	26.3	63.2	100.0		
	Wtd % of encouraged	10.5	34.6	54.9	100.0		
Spouse	Raw N	0	0	2	2	1.3	0.2
	Raw % of encouraged	0.0	0.0	100.0	100.0		
	Wtd % of encouraged	0.0	0.0	100.0	100.0		
Other	Raw N	2	2	3	7	4.4	0.7
	Raw % of encouraged	28.6	28.6	42.8	100.0		
	Wtd % of encouraged	35.6	16.9	47.5	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received encouragement from any source.

Table C.48 (cont.)

Part b. Sex of respondents: Male
Occupation category: Not sex-stereotyped

No. of Cases:*
N = 422
N' = 85

Encouraged by		Students Receiving Encouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	0	2	12	14	16.5	3.3
	Raw % of encouraged	0.0	14.3	85.7	100.0		
	Wtd % of encouraged	0.0	8.7	91.3	100.0		
Father	Raw N	1	3	5	9	10.6	2.1
	Raw % of encouraged	11.1	33.3	55.6	100.0		
	Wtd % of encouraged	3.3	49.5	47.2	100.0		
Brother	Raw N	0	0	2	2	2.4	0.5
	Raw % of encouraged	0.0	0.0	100.0	100.0		
	Wtd % of encouraged	0.0	0.0	100.0	100.0		
Sister	Raw N	0	0	4	4	4.7	0.9
	Raw % of encouraged	0.0	0.0	100.0	100.0		
	Wtd % of encouraged	0.0	0.0	100.0	100.0		
Friend	Raw N	0	7	14	21	24.7	5.0
	Raw % of encouraged	0.0	33.3	66.7	100.0		
	Wtd % of encouraged	0.0	38.6	61.4	100.0		
Counselor	Raw N	2	10	13	25	29.4	5.9
	Raw % of encouraged	8.0	40.0	52.0	100.0		
	Wtd % of encouraged	25.4	42.2	32.4	100.0		
Teacher	Raw N	1	4	24	29	34.1	6.9
	Raw % of encouraged	3.4	13.8	82.8	100.0		
	Wtd % of encouraged	1.1	47.5	51.4	100.0		
Spouse	Raw N	0	0	0	0	0.0	0.0
	Raw % of encouraged	-	-	-	-		
	Wtd % of encouraged	-	-	-	-		
Other	Raw N	0	1	5	6	7.1	1.4
	Raw % of encouraged	0.0	16.7	83.3	100.0		
	Wtd % of encouraged	0.0	17.6	82.4	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received encouragement from any source.

Table C.48 (cont.)

Part c. Sex of respondents: Male
Occupation category: Traditionally female

No. of Cases:*
N = 209
N' = 69

Encouraged by		Students Receiving Encouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	3	2	15	20	29.0	9.6
	Raw % of encouraged	15.0	10.0	75.0	100.0		
	Wtd % of encouraged	5.7	23.3	71.0	100.0		
Father	Raw N	0	1	3	4	5.8	1.9
	Raw % of encouraged	0.0	25.0	75.0	100.0		
	Wtd % of encouraged	0.0	70.3	29.7	100.0		
Brother	Raw N	0	1	2	3	4.3	1.4
	Raw % of encouraged	0.0	33.3	66.7	100.0		
	Wtd % of encouraged	0.0	35.5	64.5	100.0		
Sister	Raw N	1	0	2	3	4.3	1.4
	Raw % of encouraged	33.3	0.0	66.7	100.0		
	Wtd % of encouraged	4.0	12.6	83.4	100.0		
Friend	Raw N	0	1	15	16	23.2	7.7
	Raw % of encouraged	0.0	6.2	93.8	100.0		
	Wtd % of encouraged	0.0	5.3	94.7	100.0		
Counselor	Raw N	0	8	14	22	31.9	10.5
	Raw % of encouraged	0.0	36.4	63.6	100.0		
	Wtd % of encouraged	0.0	23.1	76.9	100.0		
Teacher	Raw N	2	5	17	24	34.8	11.5
	Raw % of encouraged	8.4	20.8	70.8	100.0		
	Wtd % of encouraged	3.7	5.0	91.3	100.0		
Spouse	Raw N	1	0	1	2	2.9	1.0
	Raw % of encouraged	50.0	0.0	50.0	100.0		
	Wtd % of encouraged	94.0	0.0	6.0	100.0		
Other	Raw N	1	0	5	6	8.7	2.9
	Raw % of encouraged	16.7	0.0	83.3	100.0		
	Wtd % of encouraged	9.4	0.0	90.6	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received encouragement from any source.

Table C.48 (cont.)

Part d. Sex of respondents: Male
Occupation category: All combined

No. of Cases:*
N = 1620
N' = 313

Encouraged by		Students Receiving Encouragement				Raw % of N'	Raw % of N
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total		
Mother	Raw N	6	12	39	59	18.2	3.5
	Raw % of encouraged	10.5	21.1	68.4	100.0		
Father	Raw N	1	8	17	26	8.3	1.6
	Raw % of encouraged	3.8	30,8	65.4	100.0		
Brother	Raw N	0	1	7	8	2.6	0.5
	Raw % of encouraged	0.0	12.5	87.5	100.0		
Sister	Raw N	2	1	13	16	5.1	1.0
	Raw % of encouraged	12.5	6.2	81.3	100.0		
Friend	Raw N	4	31	53	88	28.1	5.4
	Raw % of encouraged	4.6	35.2	60.2	100.0		
Counselor	Raw N	6	28	47	81	25.9	5.0
	Raw % of encouraged	7.4	34.6	58.0	100.0		
Teacher	Raw N	7	19	65	91	29.1	5.6
	Raw % of encouraged	7.7	20.9	71.4	100.0		
Spouse	Raw N	1	0	3	4	1.3	0.2
	Raw % of encouraged	25.0	0.0	75.0	100.0		
Other	Raw N	3	3	13	19	6.1	1.2
	Raw % of encouraged	15.8	15.8	68.4	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received enccuragement from any source.

Table C.48 (cont.)

Part e. Sex of respondents: Female
Occupation category: Traditionally female

No. of Cases:*
N = 820
N' = 168

Encouraged by		Students Receiving Encouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	0	7	29	36	21.4	4.4
	Raw % of encouraged	0.0	19.4	80.6	100.0		
	Wtd % of encouraged	0.0	20.1	79.9	100.0		
Father	Raw N	1	9	17	27	16.1	3.3
	Raw % of encouraged	3.7	33.3	63.0	100.0		
	Wtd % of encouraged	1.5	46.3	52.2	100.0		
Brother	Raw N	2	4	7	13	7.7	1.6
	Raw % of encouraged	15.4	30.8	53.8	100.0		
	Wtd % of encouraged	18.9	35.4	45.7	100.0		
Sister	Raw N	0	3	4	7	4.2	0.9
	Raw % of encouraged	0.0	42.9	57.1	100.0		
	Wtd % of encouraged	0.0	26.3	73.7	100.0		
Friend	Raw N	2	18	34	54	32.1	6.6
	Raw % of encouraged	3.7	33.3	63.0	100.0		
	Wtd % of encouraged	1.8	30.2	68.0	100.0		
Counselor	Raw N	1	11	18	30	17.9	3.7
	Raw % of encouraged	3.3	36.7	60.0	100.0		
	Wtd % of encouraged	0.1	20.4	79.5	100.0		
Teacher	Raw N	4	7	25	36	21.4	4.4
	Raw % of encouraged	11.1	19.4	69.5	100.0		
	Wtd % of encouraged	17.5	3.4	79.1	100.0		
Spouse	Raw N	0	0	1	1	0.6	0.1
	Raw % of encouraged	0.0	0.0	100.0	100.0		
	Wtd % of encouraged	0.0	0.0	100.0	100.0		
Other	Raw N	1	3	11	15	8.9	1.8
	Raw % of encouraged	6.7	20.0	73.3	100.0		
	Wtd % of encouraged	4.2	6.0	89.8	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received encouragement from any source.

Table C.48 (cont.)

Part f. Sex of respondents: Female
Occupation category: Not sex-stereotyped

No. of Cases:*
N = 573
N' = 131

		Students Receiving Encouragement					
Encouraged by		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	0	1	19	20	15.3	3.5
	Raw % of encouraged	0.0	5.0	95.0	100.0		
	Wtd % of encouraged	0.0	0.1	99.9	100.0		
Father	Raw N	0	2	15	17	13.0	3.0
	Raw % of encouraged	0.0	11.8	88.2	100.0		
	Wtd % of encouraged	0.0	5.1	94.9	100.0		
Brother	Raw N	0	0	5	5	3.8	0.9
	Raw % of encouraged	0.0	0.0	100.0	100.0		
	Wtd % of encouraged	0.0	0.0	100.0	100.0		
Sister	Raw N	0	2	6	8	6.1	1.4
	Raw % of encouraged	0.0	25.0	75.0	100.0		
	Wtd % of encouraged	0.0	57.9	42.1	100.0		
Friend	Raw N	1	15	32	48	36.6	8.4
	Raw % of encouraged	2.1	31.2	66.7	100.0		
	Wtd % of encouraged	2.6	33.9	63.5	100.0		
Counselor	Raw N	4	8	19	31	23.7	5.4
	Raw % of encouraged	12.9	25.8	61.3	100.0		
	Wtd % of encouraged	13.7	30.2	56.1	100.0		
Teacher	Raw N	1	7	23	31	23.7	5.4
	Raw % of encouraged	3.2	22.6	74.2	100.0		
	Wtd % of encouraged	0.2	13.9	85.9	100.0		
Spouse	Raw N	1	0	1	2	1.5	0.3
	Raw % of encouraged	50.0	0.0	50.0	100.0		
	Wtd % of encouraged	29.6	0.0	70.4	100.0		
Other	Raw N	0	3	9	12	9.2	2.1
	Raw % of encouraged	0.0	25.0	75.0	100.0		
	Wtd % of encouraged	0.0	3.3	96.7	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received encouragement from any source.

Table C.48 (cont.)

Part g. Sex of respondents: Female
Occupation category: Traditionally male

No. of Cases:*
N = 253
N' = 101

Encouraged by		Students Receiving Encouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	1	4	18	23	22.8	9.1
	Raw % of encouraged	4.3	17.4	78.3	100.0		
	Wtd % of encouraged	2.8	10.3	86.9	100.0		
Father	Raw N	1	4	27	32	31.7	12.6
	Raw % of encouraged	3.1	12.5	84.4	100.0		
	Wtd % of encouraged	17.3	15.0	67.7	100.0		
Brother	Raw N	0	1	6	7	6.9	2.8
	Raw % of encouraged	0.0	14.3	85.7	100.0		
	Wtd % of encouraged	0.0	0.4	99.6	100.0		
Sister	Raw N	0	1	7	8	7.9	3.2
	Raw % of encouraged	0.0	12.5	87.5	100.0		
	Wtd % of encouraged	0.0	0.3	99.7	100.0		
Friend	Raw N	1	4	32	37	36.6	14.6
	Raw % of encouraged	2.7	10.8	86.5	100.0		
	Wtd % of encouraged	0.4	1.4	98.2	100.0		
Counselor	Raw N	0	6	16	22	21.8	8.7
	Raw % of encouraged	0.0	27.3	72.7	100.0		
	Wtd % of encouraged	0.0	30.8	69.2	100.0		
Teacher	Raw N	1	2	16	19	18.8	7.5
	Raw % of encouraged	5.3	10.5	84.2	100.0		
	Wtd % of encouraged	15.4	0.2	84.4	100.0		
Spouse	Raw N	0	0	3	3	3.0	1.2
	Raw % of encouraged	0.0	0.0	100.0	100.0		
	Wtd % of encouraged	0.0	0.0	100.0	100.0		
Other	Raw N	0	3	8	11	10.9	4.3
	Raw % of encouraged	0.0	27.3	72.7	100.0		
	Wtd % of encouraged	0.0	25.6	74.4	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received encouragement from any source.

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Table C.48 (cont.)

Part h. Sex of respondents: Female
Occupation category: All combined

No. of Cases:*
N = 1646
N' = 400

Encour-aged by		Students Receiving Encouragement				Raw % of N'	Raw % of N
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total		
Mother	Raw N	1	12	66	79	19.8	4.8
	Raw % of encouraged	1.3	15.2	83.5	100.0		
Father	Raw N	2	15	59	76	19.0	4.6
	Raw % of encouraged	2.6	19.7	77.7	100.0		
Brother	Raw N	2	5	18	25	6.3	1.5
	Raw % of encouraged	8.0	20.0	72.0	100.0		
Sister	Raw N	0	6	17	23	5.8	1.4
	Raw % of encouraged	0.0	26.1	73.9	100.0		
Friend	Raw N	4	37	98	139	34.8	8.4
	Raw % of encouraged	2.9	26.6	70.5	100.0		
Coun-selor	Raw N	5	25	53	83	20.8	5.0
	Raw % of encouraged	6.0	30.1	63.9	100.0		
Teach-er	Raw N	6	16	64	86	21.5	5.2
	Raw % of encouraged	7.0	18.6	74.4	100.0		
Spouse	Raw N	1	0	5	6	1.5	0.4
	Raw % of encouraged	16.7	0.0	83.3	100.0		
Other	Raw N	1	9	28	38	9.5	2.3
	Raw % of encouraged	2.6	23.7	73.7	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received encouragement from any source.

Table C.49

HOW STUDENTS REACTED TO BEING DISCOURAGED FROM GOING INTO NONTRADITIONAL PROGRAMS

Part a. Sex of respondents: Male
Occupation category: Traditionally male

No. of Cases:*
N = 989
N' = 73

Discouraged by		Students Receiving Discouragement				Raw % of N'	Raw % of N
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total		
Mother	Raw N	1	5	2	8	11.0	0.8
	Raw % of discouraged	12.5	62.5	25.0	100.0		
	Wtd % of discouraged	1.9	96.4	1.7	100.0		
Father	Raw N	2	7	3	12	16.4	1.2
	Raw % of discouraged	16.7	58.3	25.0	100.0		
	Wtd % of discouraged	1.0	82.4	16.6	100.0		
Brother	Raw N	2	1	2	5	6.8	0.5
	Raw % of discouraged	40.0	20.0	40.0	100.0		
	Wtd % of discouraged	7.6	48.6	43.8	100.0		
Sister	Raw N	0	1	0	1	1.4	0.1
	Raw % of discouraged	0.0	100.0	0.0	100.0		
	Wtd % of discouraged	0.0	100.0	0.0	100.0		
Friend	Raw N	17	24	5	46	63.0	4.7
	Raw % of discouraged	37.0	52.1	10.9	100.0		
	Wtd % of discouraged	30.8	54.2	15.0	100.0		
Counselor	Raw N	3	3	1	7	9.6	0.7
	Raw % of discouraged	42.9	42.9	14.2	100.0		
	Wtd % of discouraged	20.5	79.4	0.1	100.0		
Teacher	Raw N	0	2	1	3	4.1	0.3
	Raw % of discouraged	0.0	66.7	33.3	100.0		
	Wtd % of discouraged	0.0	96.1	3.9	100.0		
Spouse	Raw N	1	0	0	1	1.4	0.1
	Raw % of discouraged	100.0	0.0	0.0	100.0		
	Wtd % of discouraged	100.0	0.0	0.0	100.0		
Other	Raw N	4	2	0	6	8.2	0.6
	Raw % of discouraged	66.7	33.3	0.0	100.0		
	Wtd % of discouraged	61.8	38.2	0.0	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.49 (cont.)

Part b. Sex of respondents: Male
Occupation category: Not sex-stereotyped

No. of Cases:*
N = 422
N' = 31

Discouraged by		Students Receiving Discouragement				Raw % of N'	Raw % of N
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total		
Mother	Raw N	2	2	0	4	12.9	0.9
	Raw % of discouraged	50.0	50.0	0.0	100.0		
	Wtd % of discouraged	80.8	19.2	0.0	100.0		
Father	Raw N	3	2	0	5	16.1	1.2
	Raw % of discouraged	60.0	40.0	0.0	100.0		
	Wtd % of discouraged	93.2	6.8	0.0	100.0		
Brother	Raw N	0	0	0	0	0.0	0.0
	Raw % of discouraged	–	–	–	–		
	Wtd % of discouraged	–	–	–	–		
Sister	Raw N	0	1	0	1	3.2	0.2
	Raw % of discouraged	0.0	100.0	0.0	100.0		
	Wtd % of discouraged	0.0	100.0	0.0	100.0		
Friend	Raw N	6	13	1	20	64.5	4.7
	Raw % of discouraged	30.5	65.0	5.0	100.0		
	Wtd % of discouraged	27.7	60.2	12.1	100.0		
Counselor	Raw N	1	0	0	1	3.2	0.2
	Raw % of discouraged	100.0	0.0	0.0	100.0		
	Wtd % of discouraged	100.0	0.0	0.0	100.0		
Teacher	Raw N	1	0	0	1	3.2	0.2
	Raw % of discouraged	100.0	0.0	0.0	100.0		
	Wtd % of discouraged	100.0	0.0	0.0	100.0		
Spouse	Raw N	0	0	0	0	0.0	0.0
	Raw % of discouraged	–	–	–	–		
	Wtd % of discouraged	–	–	–	–		
Other	Raw N	1	2	0	3	9.7	0.7
	Raw % of discouraged	33.3	66.7	0.0	100.0		
	Wtd % of discouraged	0.1	99.9	0.0	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.49 (cont.)

Part c. Sex of respondents: Male
Occupation category: Traditionally female

No. of Cases:*
N = 209
N' = 33

Discouraged by		Students Receiving Discouragement				Raw % of N'	Raw % of N
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total		
Mother	Raw N	1	1	0	2	6.1	1.0
	Raw % of discouraged	50.0	50.0	0.0	100.0		
	Wtd % of discouraged	68.3	31.7	0.0	100.0		
Father	Raw N	2	0	2	4	12.1	1.9
	Raw % of discouraged	50.0	0.0	50.0	100.0		
	Wtd % of discouraged	69.7	0.0	30.3	100.0		
Brother	Raw N	1	2	1	4	12.1	1.9
	Raw % of discouraged	25.0	50.0	25.0	100.0		
	Wtd % of discouraged	22.0	37.5	40.5	100.0		
Sister	Raw N	0	0	0	0	0.0	0.0
	Raw % of discouraged	–	–	–	–		
	Wtd % of discouraged	–	–	–	–		
Friend	Raw N	4	17	4	25	75.8	12.0
	Raw % of discouraged	16.0	68.0	16.0	100.0		
	Wtd % of discouraged	30.4	64.1	5.5	100.0		
Counselor	Raw N	2	0	0	2	6.1	1.0
	Raw % of discouraged	100.0	0.0	0.0	100.0		
	Wtd % of discouraged	100.0	0.0	0.0	100.0		
Teacher	Raw N	1	1	0	2	6.1	1.0
	Raw % of discouraged	50.0	50.0	0.0	100.0		
	Wtd % of discouraged	72.5	27.5	0.0	100.0		
Spouse	Raw N	1	0	0	1	3.0	0.5
	Raw % of discouraged	100.0	0.0	0.0	100.0		
	Wtd % of discouraged	100.0	0.0	0.0	100.0		
Other	Raw N	1	2	0	3	9.1	1.4
	Raw % of discouraged	33.3	66.7	0.0	100.0		
	Wtd % of discouraged	27.9	72.1	0.0	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.49 (cont.)

Part d. Sex of respondents: Male
Occupation category: All combined

No. of Cases:*
N = 1620
N' = 137

Discouraged by		Students Receiving Discouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	4	8	2	14		
	Raw % of discouraged	28.6	57.1	14.3	100.0	10.2	0.9
Father	Raw N	7	9	5	21		
	Raw % of discouraged	33.3	42.9	23.8	100.0	15.3	1.3
Brother	Raw N	3	3	3	9		
	Raw % of discouraged	33.3	33.3	33.3	100.0	6.6	0.6
Sister	Raw N	0	2	0	2		
	Raw % of discouraged	0.0	100.0	0.0	100.0	1.5	0.1
Friend	Raw N	27	54	10	91		
	Raw % of discouraged	29.7	59.3	11.0	100.0	66.4	5.6
Counselor	Raw N	6	3	1	10		
	Raw % of discouraged	60.0	30.0	10.0	100.0	7.3	0.6
Teacher	Raw N	2	3	1	6		
	Raw % of discouraged	33.3	50.0	16.7	100.0	4.4	0.4
Spouse	Raw N	2	0	0	2		
	Raw % of discouraged	100.0	0.0	0.0	100.0	1.5	0.1
Other	Raw N	6	6	0	12		
	Raw % of discouraged	50.0	50.0	0.0	100.0	8.8	0.7

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.49 (cont.)

Part e. Sex of respondents: Female
Occupation category: Traditionally female

No. of Cases:*
N = 820
N' = 113

Discouraged by		Students Receiving Discouragement				Raw % of N'	Raw % of N
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total		
Mother	Raw N	16	11	2	29	25.7	3.5
	Raw % of discouraged	55.2	37.9	6.9	100.0		
	Wtd % of discouraged	86.5	12.6	0.9	100.0		
Father	Raw N	9	5	1	15	13.3	1.8
	Raw % of discouraged	60.0	33.3	6.7	100.0		
	Wtd % of discouraged	78.5	21.4	0.1	100.0		
Brother	Raw N	7	1	1	9	8.0	1.1
	Raw % of discouraged	77.8	11.1	11.1	100.0		
	Wtd % of discouraged	86.4	1.0	12.6	100.0		
Sister	Raw N	1	4	1	6	5.3	0.7
	Raw % of discouraged	16.7	66.6	16.7	100.0		
	Wtd % of discouraged	31.6	36.8	31.6	100.0		
Friend	Raw N	16	21	5	42	37.2	5.1
	Raw % of discouraged	38.1	50.0	11.9	100.0		
	Wtd % of discouraged	25.0	56.9	18.1	100.0		
Counselor	Raw N	6	2	0	8	7.1	1.0
	Raw % of discouraged	75.0	25.0	0.0	100.0		
	Wtd % of discouraged	97.8	2.2	0.0	100.0		
Teacher	Raw N	4	6	0	10	8.8	1.2
	Raw % of discouraged	40.0	60.0	0.0	100.0		
	Wtd % of discouraged	18.8	81.2	0.0	100.0		
Spouse	Raw N	1	0	0	1	0.9	0.1
	Raw % of discouraged	100.0	0.0	0.0	100.0		
	Wtd % of discouraged	100.0	0.0	0.0	100.0		
Other	Raw N	12	3	1	16	14.2	2.0
	Raw % of discouraged	75.0	18.7	6.3	100.0		
	Wtd % of discouraged	89.0	4.1	6.9	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.49 (cont.)

Part f. Sex of respondents: Female
Occupation category: Not sex-stereotyped

No. of Cases:*
N = 573
N' = 79

Discouraged by		Students Receiving Discouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	13	8	1	22	27.8	3.8
	Raw % of discouraged	59.1	36.4	4.5	100.0		
	Wtd % of discouraged	15.5	82.8	1.7	100.0		
Father	Raw N	9	5	2	16	20.3	2.8
	Raw % of discouraged	56.2	31.3	12.5	100.0		
	Wtd % of discouraged	60.6	17.8	21.6	100.0		
Brother	Raw N	0	1	0	1	1.3	0.2
	Raw % of discouraged	0.0	100.0	0.0	100.0		
	Wtd % of discouraged	0.0	100.0	0.0	100.0		
Sister	Raw N	0	2	0	2	2.5	0.3
	Raw % of discouraged	0.0	100.0	0.0	100.0		
	Wtd % of discouraged	0.0	100.0	0.0	100.0		
Friend	Raw N	11	13	2	26	32.9	4.5
	Raw % of discouraged	42.3	50.0	7.7	100.0		
	Wtd % of discouraged	30.5	63.4	6.1	100.0		
Counselor	Raw N	4	3	0	7	8.9	1.2
	Raw % of discouraged	57.1	42.9	0.0	100.0		
	Wtd % of discouraged	59.6	40.4	0.0	100.0		
Teacher	Raw N	12	3	0	15	19.0	2.6
	Raw % of discouraged	80.0	20.0	0.0	100.0		
	Wtd % of discouraged	87.2	12.8	0.0	100.0		
Spouse	Raw N	0	0	0	0	0.0	0.0
	Raw % of discouraged	-	-	-	-		
	Wtd % of discouraged	-	-	-	-		
Other	Raw N	6	3	1	10	12.7	1.7
	Raw % of discouraged	60.0	30.0	10.0	100.0		
	Wtd % of discouraged	85.3	14.4	0.3	100.0		

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*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.49 (cont.)

Part g. Sex of respondents: Female
Occupation category: Traditionally male

No. of Cases:*
N = 253
N' = 69

Discouraged by		Students Receiving Discouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	15	9	1	25	36.2	9.9
	Raw % of discouraged	60.0	36.0	4.0	100.0		
	Wtd % of discouraged	52.6	46.4	1.0	100.0		
Father	Raw N	6	7	1	14	20.3	5.5
	Raw % of discouraged	42.9	50.0	7.1	100.0		
	Wtd % of discouraged	19.8	76.4	3.8	100.0		
Brother	Raw N	2	5	0	7	10.1	2.8
	Raw % of discouraged	28.6	71.4	0.0	100.0		
	Wtd % of discouraged	63.2	36.8	0.0	100.0		
Sister	Raw N	1	2	0	3	4.3	1.2
	Raw % of discouraged	33.3	66.7	0.0	100.0		
	Wtd % of discouraged	84.1	15.9	0.0	100.0		
Friend	Raw N	7	16	2	25	36.2	9.9
	Raw % of discouraged	28.0	64.0	8.0	100.0		
	Wtd % of discouraged	11.4	78.8	9.8	100.0		
Counselor	Raw N	6	0	0	6	8.7	2.4
	Raw % of discouraged	100.0	0.0	0.0	100.0		
	Wtd % of discouraged	100.0	0.0	0.0	100.0		
Teacher	Raw N	3	1	1	5	7.2	2.0
	Raw % of discouraged	60.0	20.0	20.0	100.0		
	Wtd % of discouraged	24.6	0.7	74.7	100.0		
Spouse	Raw N	1	1	0	2	2.9	0.8
	Raw % of discouraged	50.0	50.0	0.0	100.0		
	Wtd % of discouraged	61.6	38.4	0.0	100.0		
Other	Raw N	7	5	0	12	17.4	4.7
	Raw % of discouraged	58.3	41.7	0.0	100.0		
	Wtd % of discouraged	92.1	7.9	0.0	100.0		

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.49 (cont.)

Part h. Sex of respondents: Female
Occupation category: All combined

No. of Cases:*
N = 1646
N' = 261

Discouraged by		Students Receiving Discouragement					
		Resentful, Annoyed	Indifferent, Uninterested	Pleased, Appreciative	Total	Raw % of N'	Raw % of N
Mother	Raw N	44	28	4	76		
	Raw % of discouraged	57.9	36.8	5.3	100.0	29.1	4.6
Father	Raw N	24	17	4	45		
	Raw % of discouraged	53.3	37.8	8.9	100.0	17.2	2.7
Brother	Raw N	9	7	1	17		
	Raw % of discouraged	52.9	41.2	5.9	100.0	6.5	1.0
Sister	Raw N	2	8	1	11		
	Raw % of discouraged	18.2	72.7	9.1	100.0	4.2	0.7
Friend	Raw N	34	50	9	93		
	Raw % of discouraged	36.5	53.8	9.7	100.0	35.6	5.7
Counselor	Raw N	16	5	0	21		
	Raw % of discouraged	76.2	23.8	0.0	100.0	8.0	1.3
Teacher	Raw N	19	10	1	30		
	Raw % of discouraged	63.4	33.3	3.3	100.0	11.5	1.8
Spouse	Raw N	2	1	0	3		
	Raw % of discouraged	66.7	33.3	0.0	100.0	1.1	0.2
Other	Raw N	25	11	2	38		
	Raw % of discouraged	65.8	28.9	5.3	100.0	14.6	2.3

*Notation: N = total number of students in sample, in group designated in terms of occupational stereotyping category and sex.

N' = number of students in sample who received discouragement from any source.

Table C.50

PERCENTAGES OF STUDENTS (PREPARING FOR TRADITIONALLY MALE OR TRADITIONALLY FEMALE OCCUPATIONS) WHO WERE ENCOURAGED OR DISCOURAGED BY VARIOUS PERSONS IN REGARD TO PREPARING FOR "NONTRADITIONAL" OCCUPATIONS

Person Giving Advice About Nontraditional Occupations	Nature of Advice	Male Students		Female Students	
		Traditionally Male Occupations (N = 989)	Traditionally Female Occupations (N = 209)	Traditionally Female Occupations (N = 820)	Traditionally Male Occupations (N = 253)
		% of N			
Mother	Encourage	2.3	9.6	4.4	9.1
	Discourage	0.8	1.0	3.5	9.9
Father	Encourage	1.3	1.9	3.3	12.6
	Discourage	1.2	1.9	1.8	5.5
Brother	Encourage	0.3	1.4	1.6	2.8
	Discourage	0.5	1.9	1.1	2.8
Sister	Encourage	0.9	1.4	0.9	3.2
	Discourage	0.1	0.0	0.7	1.2
Friend	Encourage	5.2	7.7	6.6	14.6
	Discourage	4.7	12.0	5.1	9.9
Counselor	Encourage	3.4	10.5	3.7	8.7
	Discourage	0.7	1.0	1.0	2.4
Teacher	Encourage	3.8	11.5	4.4	7.5
	Discourage	0.3	1.0	1.2	2.0
Spouse	Encourage	0.2	1.0	0.1	1.2
	Discourage	0.1	0.5	0.1	0.8
Other	Encourage	0.7	2.9	1.8	4.3
	Discourage	0.6	1.4	2.0	4.7
Anyone	Encourage	17.3	35.4	21.1	41.9
	Discourage	7.7	16.2	13.8	27.3

NOTE: The percentages shown in this table are raw (unweighted) percentages extracted from Tables C.47, C.48, and C.49.

most prevalent source of advice, after friends, was parents (but in this instance with mothers providing more discouragement, and fathers more encouragement.

For students of both sexes, sisters and brothers were a relatively infrequent source of advice. However female students were definitely more likely to receive advice (both pro and con) from siblings than were male students.

Spouses were hardly ever reported as sources of either encouragement or discouragement. This is hardly surprising since so few of the students had spouses, the vast majority of the sample members still being only at the secondary school level.

To summarize sources of advice: Female students appear to receive advice mostly from friends and family; male students mostly from friends and school staff.

Now that we have discovered who provided advice to students regarding nontraditional programs, the next question is, "How did the recipients of the advice feel about it?" The answer seems to be that they tended to be appreciative of advice favoring nontraditional courses and (to a somewhat lesser extent) to resent or be annoyed by advice in the opposite direction. This was true regardless of whether the student's occupational choice was traditional or nontraditional. This seems to suggest that negative advice is to a considerable extent ignored (as is positive advice). The relatively small percentage of students in traditional or unstereotyped programs who reported not only that they had received negative advice about nontraditional programs but that they had appreciated it enables us to put a more reasonable upper limit on the amount by which nontraditional enrollment might have been increased had it not been for the effects of negative advice. If we assume that the appreciated advice is an upper limit on the amount that was acted upon, the upper limits of 23% and 230% for increases in nontraditional enrollment for male students and female students reduce to 3%* and 17%

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*The method by which these estimates were computed is explained in Appendix C.4.

respectively. Thus the potential reduction in nontraditional enrollment that may have occurred as a result of advice against such enrollment from any source appears to be low in terms of percentage for male students. The potential reduction for females appears to be substantially higher.

There is probably a considerable difference between advice about entering a nontraditional program and a well-planned, well-organized program offered by the school to provide hard facts and rational arguments regarding nontraditional career choices. Such programs are likely to have a greater influence. This is supported by the finding discussed earlier which showed that schools which have special programs to encourage nontraditional enrollment have higher rates of such enrollment.

SUMMARY

The following are the major findings presented in this chapter.

Enrollment and Staffing Patterns

- In 1978, 7.8% of the enrollees in traditionally male occupational areas were women, and 10.9% of the enrollees in traditionally female occupational areas were men.
- Since 1972, female enrollment in traditionally male technical occupations has increased approximately 3%; female enrollment in traditionally male agriculture occupations has increased approximately 8%; and there has been virtually no change in traditionally male trade and industrial areas.
- Since 1972, the percent of females in the traditionally female occupational areas has increased: Business and Office shows approximately a 5% increase, Trade and Industrial a 6% increase, and Health virtually no change. There has been approximately a 10% decrease in the female enrollments in traditionally female home economic areas.
- Fifty-nine percent of the counselors interviewed at the schools sampled were men, as were about 51% of feeder school counselors.
- Persons of one or the other sex predominate as teachers in each occupational area. Comparison of data collected in the present study with data collected in 1974 by the Office of Civil Rights show no movement away from traditional patterns.
- The age of traditional and nontraditional students differs by less than a year.

- There are no major differences between traditional and nontraditional students in terms of socioeconomic status as measured by occupational level of parents. There is slight evidence that nontraditional males have mothers with slightly higher SES.

- Overall, nontraditional students appear to be more ambivalent about their plans for the future. Traditional students are more likely to plan to enter the field for which they are training.

School Efforts to Address Inequities

- Overall, about 20% of the school-level respondents report that some action is being taken to reduce sex inequities in staffing.

- Little student- or community-oriented equity activity is being undertaken. Approximately 30% report programs to make students aware of, or encourage them to enter, nontraditional programs. Twenty-one percent report there are activities to alert students to potential inequities and their rights as employees.

- From 40% to 60% of respondents indicate that their schools are reviewing activities to insure compliance with state and federal legislation regarding sex equity. Approximately a quarter of the school personnel say there is a need for staff and students to be able to submit information regarding instances of sex bias or discrimination.

- Special activities to meet the needs of minority students are reported in approximately a quarter of the schools. However, regional differences favor the South and West.

- About a third of the schools report they are taking (or plan to take) some action to meet the needs of older women returning to school. The bulk of this activity consists of evening classes being offered. Sixteen percent are providing remedial programs for women lacking background to enter traditionally male fields; approximately 14% report that special re-entry programs or counseling for women who have been out of the labor market for an extended period are provided.

Counseling Practices and Student Choices

- Counselors report a variety of methods to inform students of training opportunities. Most counselors say that student preference is the primary basis for making curriculum recommendations; some also report student records (grades, etc.) as the major factor.

- Counselors report no uniform system for filling limited openings. Thirty-seven percent report a first-come, first-served basis, 21% cite previous achievement, and 10% cite seriousness of intent or interest.

- Thirty-eight percent of vocational school counselors report they employ special techniques to attract nontraditional students. Female counselors were somewhat more likely to report such activities than their male counterparts.

- Slightly over half of the students indicated that they learned of their vocational programs through a school program or from a school staff member. (Together, parents and friends were mentioned by about 30% of the students.)

- While the majority of students claim to have the primary influence over their own occupational choices, the school compares favorably with family and friends among the remainder. A family member was mentioned as having primary influence by about 15% of the men, and 17% of the women. School staff were mentioned by about 5% of each. How many of the over 60% who claimed to make their own decisions had these decisions critically influenced by the family or the school in ways unrecognized is, of course, impossible to say, but the number is probably substantial.

Effects on Students of the Attitudes or Actions of School Personnel

- Over 75% of students are attending schools where staff are not really sure whether the school is doing anything formally to make students aware of or encourage them to enter nontraditional programs.

- Over 60% of students are in schools where there is a similar lack of staff information concerning programs to make students aware of potential inequities.

- Nontraditional students tend to be more knowledgeable about programs to encourage nontraditional enrollment. This indicates that such programs are having the desired effect; however, only about 25% of students are in schools where the staff consensus is that such a program exists.

- There is clear evidence that those schools putting the most effort into various kinds of activities to further equity are also those experiencing the greatest amount of nontraditional enrollment.

- About 14% of men and 25% of women who choose nontraditional fields have been subjected to advice against this choice. The advice obviously did not deter them from enrolling but it may account for the more ambivalent career plans of nontraditional students.

- The chief sources of advice about nontraditional programs are friends, parents, and school personnel. In the case of school personnel more students report encouragement than discouragement.

II.D PERCEPTIONS AND OPINIONS REGARDING EQUITY IN VOCATIONAL EDUCATION

The preceding chapters have discussed the activities which states, local agencies, and schools are engaged in to foster greater sex equity. In addition to information on the efforts which are being made, perceptions regarding the frequency of inequitable practices in vocational education, and the reactions people have to the efforts to foster equity were also collected. Questions addressed how nontradtional students are perceived by students and staff and what existing opinions are regarding male and female labor force options and appropriate roles. This chapter details the results of these aspects of the study. It has four main subsections:

- Perceptions Regarding Inequitable Practices in Vocational Education
- Perceptions Regarding Nontraditional Students in Vocational Education
- Perceptions Regarding Appropriate Male and Female Labor Force Options and Roles
- Satisfaction with Vocational Education and Its Sex Equity Efforts.

PERCEPTIONS REGARDING INEQUITABLE PRACTICES IN VOCATIONAL EDUCATION

Frequency

State, local, and school personnel were asked about the existence of various inequitable practices in vocational education. These practices include:

- Rules and regulations denying admission to certain courses or programs on the basis of sex
- Quotas limiting the number of males or females admitted to certain courses or programs
- Unwritten understandings that some courses or programs are for males and other courses for females, even though there is no formal policy to that effect
- A tendency for the vocational school counselors to suggest traditional options to male and female students undecided as to a career

- A tendency for the vocational school counselors to discourage already interested students from entering nontraditional programs

- A reluctance by teachers to have nontraditional students in their courses

- A tendency to take the sex of the students into consideration in determining the type of work-study, cooperative education, or job placements provided for students

In addition, school personnel were asked whether the following exist:

- A tendency for feeder school counselors to suggest different options to male and female students undecided as to a career

- A tendency for feeder school counselors to discourage already interested students from entering nontraditional programs

For each practice respondents indicated that the practice existed "Commonly (at least 50% of the time)," "Just some (less than 50% of the time)," or "Rarely, if at all." These options were assigned values of 1, 2, and 3, respectively. Thus, when a mean is computed, the lower the mean, the more common the practice is perceived to be. Table E.1a presents the responses of state level personnel, with the exception of the State Director. It shows the mean response for state level personnel in the nation as a whole and by each USOE region.

Table D.1a shows that virtually all SEA personnel feel that "Rules denying admission" and "Quota limiting admission" occur rarely if at all. They also feel that "Unwritten understandings," "Counselors discouraging nontraditional choices," "Teacher reluctance," and "Sex determiner for work-study, etc." occur less than 50% of the time. SEA personnel combined feel that "Counselors suggest traditional options to students undecided on a career" occurs commonly to just some of the time. Thus the table shows that state personnel overall feel that "Rules denying admission" and "Quotas limiting admission" are least common, while "Counselors suggesting traditional options to students" and "Sex used to determine the type of placement" are most common. This pattern is borne out in virtually every USOE region, with slight variations occurring in regions III and X concerning the practices which are most common. In these two regions "Reluctance of

Table D.1a

MEAN* RESPONSES OF STATE LEVEL PERSONNEL (EXCEPT STATE DIRECTOR) REGARDING EXISTENCE OF INEQUITABLE PRACTICES

REGION	PRACTICE																				
	Rules Denying Admission			Quotas Limiting Admission			Unwritten Understandings			Counselors Suggest Traditional Options			Counselors Discourage Nontraditional Choices			Teacher Reluctance to Have Nontraditional Students			Sex a Determiner for Work-Study Placement, etc.		
	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
SEA Level-Overall	336	2.94	.28	330	2.96	.20	336	2.26	.73	314	1.84	.71	315	2.25	.74	325	2.27	.70	319	2.11	.77
Regions I and II	50	2.94	.31	51	2.90	.36	52	2.0	.66	51	1.76	.65	51	2.24	.76	52	2.25	.68	53	1.96	.76
Region III	41	2.9	.22	39	2.97	.16	41	2.32	.72	36	1.97	.77	39	2.33	.81	40	2.15	.80	38	2.37	.75
Region IV	56	3.0	.0	54	3.0	.0	55	2.40	.74	50	1.96	.64	48	2.31	.72	52	2.31	.64	49	2.06	.72
Region V	40	2.95	.32	39	2.95	.32	40	2.20	.79	40	1.85	.77	40	2.08	.80	38	2.29	.73	35	2.11	.83
Region VI	34	2.91	.38	33	3.0	.0	34	2.53	.66	26	1.77	.71	29	2.38	.62	32	2.41	.67	32	2.22	.75
Region VII	24	2.96	.20	24	3.0	.0	24	2.17	.76	22	2.0	.69	21	2.48	.60	22	2.55	.60	23	2.26	.86
Region VIII	33	2.91	.29	32	3.0	.0	33	2.21	.74	33	1.42	.71	32	1.91	.78	33	2.06	.61	33	1.76	.66
Region IX	29	2.93	.26	29	2.97	.19	28	2.36	.73	29	1.97	.73	29	2.24	.74	29	2.28	.70	28	2.11	.79
Region X	29	2.90	.41	29	2.97	.19	29	2.20	.73	27	1.93	.62	26	2.42	.64	27	2.30	.78	28	2.32	.72

*Values used in computing $\bar{X}$ (mean):

1. Commonly (at least 50% of the time)
2. Just some (less than 50% of the time)
3. Rarely, if at all

Teachers to have nontraditional students in their classes" and "Unwritten understandings about which courses are for males and females" were felt to be more common that the practice of sex determining the type of placement which is made. All of these, however, are felt to occur less than 50% of the time.

Table D.1b presents a comparison between state personnel responses, those of the directors and counselors at the local education agency level, and counselors and instructors at the school level. The total column reveals that in virtually every instance state level personnel perceive the practices to be more common than local agency or school level personnel. The differences, however, are not great. For three of the four options relating to counselors--"Counselors suggest traditional options to students," "Counselors discourage nontradtional options," and "Feeder school counselors discourage nontraditional options," the counselors perceive these practices to be less common than do other personnel, thus taking a more sanguine attitude toward their own performance. The practice of "Teacher reluctance to have nontraditional students in their courses" is perceived to be least common by teachers, closely followed by school counselors.

Table D.1c presents a more detailed comparison of the mean responses of school counselors and instructors, by type of school. On the whole, counselors and teachers seem to have similar perceptions. When inequitable practices performed by counselors are considered, teachers think they are more common than counselors do. When teacher reluctance to have nontraditional students in their courses is considered, counselors feel this is more common than do teachers.

Justifiability

Tables D.1a, D.1b, and D.1c presented data on perceptions regarding the frequency of various practices. Respondents were also asked if there were circumstances in which these practices are justifiable, and Tables D.2a, D.2b, and D.2c display the proportion of people giving this response. The proportion of individuals who think the practices are justifiable are quite low.

Table D.1b

MEAN[*] RESPONSE REGARDING EXISTENCE OF PRACTICES BY CENSUS AREA

PRACTICE	RESPONDENTS	AREA														
		North East			North Central			South			West			TOTAL		
		N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
Feeder counselors suggest different options	LEA Counselors	9	1.89	.78	12	1.58	.90	12	2.17	.94	10	2.50	.85	43	2.02	.91
	School Counselors	30	1.93	.98	37	1.86	.89	41	2.07	.91	31	2.16	.86	139	2.01	.90
	School Instructors	67	2.09	.90	71	2.37	.80	103	2.20	.88	54	2.17	.84	295	2.21	.86
Feeder counselors discourage nontraditional options	LEA Counselors	9	2.56	.73	12	3.00	.00	12	2.92	.29	10	3.00	.00	43	2.88	.39
	School Counselors	31	2.81	.60	36	2.72	.61	39	2.67	.70	32	2.78	.55	138	2.74	.62
	School Instructors	61	2.36	.82	74	2.76	.52	113	2.60	.66	58	2.57	.73	306	2.59	.69
Rules denying admission on basis of sex	State Level Personnel[**]	57	2.95	.29	76	2.96	.26	119	2.97	.16	84	2.88	.39	336	2.94	.28
	LEA Directors	18	2.94	.24	29	3.00	.00	30	3.00	.00	19	3.00	.00	96	2.99	.24
	LEA Counselors	9	3.00	.00	13	3.00	.00	15	3.00	.00	11	3.00	.00	48	3.00	.00
	School Counselors	40	2.90	.44	46	2.98	.15	52	2.98	.14	47	2.94	.25	185	2.95	.26
	School Instructors	140	2.96	.22	185	2.95	.28	225	2.93	.33	133	2.97	.24	683	2.95	.28
Quotas limiting admission	State Level Personnel[**]	57	2.91	.34	74	2.97	.23	115	2.99	.09	84	2.98	.15	330	2.97	.20
	LEA Directors	18	3.00	.00	29	3.00	.00	30	2.93	.37	19	2.89	.46	96	2.96	.29
	LEA Counselors	9	3.00	.00	13	3.00	.00	14	3.00	.00	11	3.00	.00	47	3.00	.00
	School Counselors	40	3.00	.00	46	2.98	.15	51	2.98	.14	47	3.00	.00	184	2.99	.10
	School Instructors	135	2.96	.27	181	2.95	.28	222	2.96	.21	134	2.98	.15	672	2.96	.23
Unwritten understandings	State Level Personnel[**]	59	2.02	.63	76	2.18	.73	118	2.43	.72	83	2.27	.77	336	2.26	.73
	LEA Directors	18	2.44	.70	29	2.72	.39	30	2.70	.60	19	2.74	.56	96	2.67	.61
	LEA Counselors	9	2.11	.93	12	2.83	.39	14	2.64	.50	11	2.91	.30	46	2.65	.60
	School Counselors	40	2.80	.41	46	2.50	.81	51	2.55	.73	45	2.67	.64	182	2.62	.68
	School Instructors	141	2.53	.74	172	2.59	.69	219	2.60	.70	135	2.63	.64	667	2.59	.69
Counselors suggest traditional options	State Level Personnel[**]	57	1.77	.66	74	1.81	.75	101	1.96	.69	82	1.78	.72	314	1.84	.71
	LEA Directors	16	2.13	.81	27	2.30	.82	23	2.35	.65	15	2.53	.64	81	2.32	.74
	LEA Counselors	8	2.83	.35	13	2.31	.85	16	2.38	.81	10	2.50	.71	47	2.67	.75
	School Counselors	36	2.44	.77	45	2.53	.69	51	2.57	.70	47	2.40	.83	179	2.49	.74
	School Instructors	96	2.26	.90	136	2.43	.78	171	2.43	.81	101	2.48	.76	504	2.40	.81
Counselors discourage nontraditional choices	State Level Personnel[**]	57	2.23	.76	73	2.14	.77	105	2.36	.72	80	2.23	.73	315	2.25	.74
	LEA Directors	17	2.47	.72	27	2.85	.36	27	2.67	.55	18	2.78	.55	89	2.71	.55
	LEA Counselors	9	3.00	.00	13	2.77	.60	16	2.88	.50	10	2.80	.63	48	2.85	.50
	School Counselors	38	2.95	.32	46	2.87	.54	51	2.92	.34	46	2.93	.25	181	2.91	.38
	School Instructors	115	2.67	.70	151	2.83	.45	186	2.77	.57	113	2.81	.53	565	2.77	.56
Teacher reluctance to have nontraditional students	State Level Personnel[**]	59	2.19	.68	72	2.36	.66	112	2.31	.71	82	2.21	.72	325	2.27	.70
	LEA Directors	18	2.44	.70	29	2.62	.56	30	2.60	.56	19	2.68	.48	96	2.59	.57
	LEA Counselors	8	2.50	.76	10	2.10	.74	12	2.50	.52	10	2.60	.70	40	2.43	.68
	School Counselors	40	2.80	.46	45	2.69	.47	51	2.75	.48	47	2.60	.54	183	2.70	.49
	School Instructors	134	2.68	.57	176	2.69	.57	219	2.79	.50	132	2.83	.43	661	2.75	.52
Sex a determiner for work-study placement, etc.	State Level Personnel[**]	59	2.03	.76	70	2.11	.81	108	2.19	.74	82	2.07	.78	319	2.11	.77
	LEA Directors	15	2.60	.51	28	2.61	.63	29	2.59	.57	17	2.47	.62	89	2.57	.58
	LEA Counselors	8	2.13	.83	11	1.82	1.08	13	2.69	.63	11	2.55	.69	43	2.33	.87
	School Counselors	33	2.39	.90	45	2.49	.73	50	2.42	.81	44	2.30	.76	172	2.40	.79
	School Instructors	114	2.37	.81	157	2.34	.80	214	2.44	.78	123	2.47	.72	608	2.41	.78

[*] Values used in computing $\bar{X}$ (mean):
1. Commonly (at least 50% of the time)
2. Just some (less than 50% of the time)
3. Rarely, if at all

[**] State Director responses are not included in any of the above State Level Personnel.

Table D.1c

EXISTENCE OF PRACTICES AS REPORTED BY COUNSELORS AND TEACHERS IN DIFFERENT TYPES OF SCHOOLS

PRACTICE	RESPONDENT	Vocational High School			Comprehensive High School			Technical Institutes			Junior/Community College			Vocational Center			Junior High School			TOTAL		
		N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
Feeder counselors suggest different options	Counselors	10	1.40	.70	93	2.17	.90	4	1.50	1.0	17	1.71	.77	13	1.69	.85	2	3.0	.0	139	2.01	.90
	Teachers	18	2.22	.94	146	2.23	.86	12	2.50	.80	39	2.36	.84	75	2.03	.84				290	2.20	.86
Feeder counselors discourage non-traditional options	Counselors	9	2.56	.88	97	2.82	.54	3	2.0	1.0	13	2.62	.77	14	2.50	.65	2	3.0	.0	138	2.74	.62
	Teachers	17	2.59	.62	157	2.71	.60	13	2.69	.63	39	2.64	.71	75	2.28	.80				301	2.58	.69
Rules denying admission on basis of sex	Counselors	10	3.0	.0	130	2.93	.31	4	3.0	.0	26	3.0	.0	13	3.0	.0	2	3.0	.0	185	2.95	.26
	Teachers	44	2.95	.30	407	2.93	.33	23	3.0	.0	85	3.0	.0	117	2.99	.1				676	2.95	.27
Quotas limiting admission	Counselors	10	3.0	.0	129	2.98	.12	4	3.0	.0	26	3.0	.0	13	3.0	.0	2	3.0	.0	184	2.99	.10
	Teachers	43	3.0	.0	401	2.95	.29	23	2.96	.21	85	2.99	.11	113	2.98	.13				665	2.96	.24
Unwritten understandings	Counselors	10	2.60	.84	128	2.60	.67	4	2.75	.50	25	2.60	.76	13	2.85	.55	2	2.50	.71	182	2.62	.68
	Teachers	40	2.70	.65	399	2.51	.74	22	2.64	.66	83	2.77	.48	116	2.69	.65				660	2.59	.69
Counselors suggest traditional options	Counselors	9	2.44	.88	126	2.49	.72	4	2.50	1.0	26	2.50	.81	12	2.42	.79	2	3.0	.0	179	2.49	.74
	Teachers	28	2.64	.73	311	2.29	.86	19	2.53	.70	68	2.54	.66	73	2.66	.69				499	2.40	.81
Counselors discourage nontraditional choices	Counselors	10	3.0	.0	128	2.90	.41	4	3.0	.0	25	2.88	.44	12	3.0	.0	2	3.0	.0	181	2.92	.38
	Teachers	40	2.85	.48	346	2.71	.63	20	2.95	.22	72	2.88	.41	81	2.90	.41				559	2.77	.56
Teacher reluctance to have nontraditional students	Counselors	10	2.40	.70	130	2.77	.42	4	2.25	.96	25	2.56	.58	13	2.69	.48	1	3.0	.0	183	2.70	.49
	Teachers	41	2.66	.57	393	2.76	.53	24	2.88	.34	83	2.89	.31	113	2.61	.62				654	2.75	.53
Sex a determiner for work-study placement, etc.	Counselors	8	2.50	.76	121	2.38	.78	4	2.0	1.15	25	2.44	.82	12	2.67	.78	2	2.0	1.41	172	2.40	.79
	Teachers	35	2.43	.78	363	2.36	.79	20	2.80	.52	81	2.60	.65	103	2.33	.83				602	2.40	.78

*Values used in computing $\bar{X}$ (mean):
1. Commonly (at least 50% of the time)
2. Just some (less than 50% of the time)
3. Rarely, if at all

Table D.2a

MEAN PROPORTION OF STATE LEVEL RESPONDENTS (EXCEPT STATE DIRECTOR) THINKING THERE ARE CIRCUMSTANCES IN WHICH EACH PRACTICE IS JUSTIFIABLE

REGION	PRACTICE																				
	Rules Denying Admission			Quotas Limiting Admission			Unwritten Understandings			Counselors Suggest Traditional Options			Counselors Discourage Nontraditional Choices			Teacher Reluctance to Have Nontraditional Students			Sex a Determiner for Work-Study Placement, etc.		
	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
SEA Level-Overall	344	.02	.14	344	.04	.20	344	.02	.13	344	.06	.24	344	.04	.20	344	.06	.25	344	.25	.44
Regions I and II	54	.02	.14	54	.06	.23	54	.02	.14	54	.09	.29	54	.07	.26	54	.09	.29	54	.28	.45
Region III	41	.02	.16	41	.07	.26	41	.0	.0	41	.07	.26	41	.0	.0	41	.0	.0	41	.27	.45
Region IV	56	.02	.13	56	.0	.0	56	.02	.13	56	.04	.19	56	.02	.13	56	.05	.23	56	.16	.37
Region V	41	.02	.16	41	.07	.26	41	.0	.0	41	.0	.0	41	.07	.26	41	.07	.26	41	.22	.42
Region VI	34	.0	.0	34	.0	.0	34	.0	.0	34	.12	.33	34	.12	.33	34	.12	.33	34	.38	.49
Region VII	25	.0	.0	25	.0	.0	25	.0	.0	25	.12	.33	25	.0	.0	25	.0	.0	25	.16	.37
Region VIII	33	.0	.0	33	.03	.17	33	.03	.17	33	.0	.0	33	.0	.0	33	.03	.17	33	.30	.47
Region IX	31	.06	.25	31	.06	.25	31	.0	.0	31	.0	.0	31	.03	.18	31	.06	.25	31	.23	.43
Region X	29	.03	.19	29	.07	.26	29	.10	.31	29	.14	.35	29	.03	.19	29	.14	.35	29	.31	.47

Table D.2b

MEAN PROPORTION OF RESPONDENTS THINKING THERE ARE CIRCUMSTANCES IN WHICH EACH PRACTICE IS JUSTIFIABLE

PRACTICE	RESPONDENTS	AREA														
		North East			North Central			South			West			TOTAL		
		N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
Feeder counselors suggest different options	LEA Counselors	9	.00	.00	13	.80	.28	16	.13	.34	11	.18	.40	49	.10	.31
	School Counselors	40	.33	.47	46	.24	.43	52	.23	.43	48	.13	.33	186	.23	.42
	School Instructors	145	.12	.32	196	.22	.42	231	.09	.29	144	.10	.31	716	.14	.34
Feeder counselors discourage non-traditional options	LEA Counselors	9	.00	.00	13	.80	.28	16	.00	.00	11	.00	.00	49	.02	.14
	School Counselors	40	.05	.22	46	.09	.28	52	.04	.19	48	.10	.31	186	.07	.26
	School Instructors	145	.05	.22	196	.05	.22	231	.02	.15	144	.01	.12	716	.03	.18
Rules denying admission on basis of sex	State Level Personnel*	61	.02	.13	78	.01	.11	119	.02	.13	86	.03	.18	344	.02	.14
	LEA Directors	18	.00	.00	29	.14	.35	30	.03	.18	19	.05	.23	96	.06	.24
	LEA Counselors	9	.00	.00	13	.00	.00	16	.13	.34	11	.18	.40	49	.08	.28
	School Counselors	40	.05	.22	46	.02	.15	52	.06	.24	48	.02	.14	186	.04	.19
	School Instructors	146	.08	.26	197	.11	.32	230	.07	.26	144	.07	.26	717	.08	.28
Quotas limiting admission	State Level Personnel*	61	.05	.22	78	.04	.19	119	.03	.16	86	.06	.24	344	.04	.20
	LEA Directors	18	.11	.32	29	.03	.19	30	.07	.25	19	.00	.00	96	.05	.22
	LEA Counselors	9	.00	.00	13	.00	.00	16	.00	.00	11	.00	.00	49	.00	.00
	School Counselors	40	.08	.27	46	.02	.15	52	.06	.24	48	.02	.14	186	.04	.20
	School Instructors	146	.09	.29	196	.09	.28	231	.06	.25	144	.06	.23	717	.07	.26
Unwritten understandings	State Level Personnel*	61	.02	.13	78	.00	.00	119	.01	.09	86	.05	.21	344	.02	.13
	LEA Directors	18	.00	.00	29	.03	.19	30	.07	.25	19	.05	.23	96	.04	.20
	LEA Counselors	9	.00	.00	13	.00	.00	16	.00	.00	11	.00	.00	49	.00	.00
	School Counselors	40	.08	.27	46	.13	.34	52	.04	.19	48	.04	.20	186	.07	.26
	School Instructors	146	.09	.29	196	.09	.28	231	.06	.24	144	.08	.27	717	.08	.27
Counselors suggest traditional options	State Level Personnel*	61	.10	.30	78	.04	.19	119	.06	.24	86	.06	.24	344	.06	.24
	LEA Directors	18	.06	.24	29	.14	.35	30	.10	.31	19	.11	.32	96	.10	.31
	LEA Counselors	9	.00	.00	13	.08	.28	16	.13	.34	11	.09	.30	49	.08	.28
	School Counselors	40	.28	.45	46	.13	.34	52	.12	.32	48	.13	.33	186	.16	.36
	School Instructors	146	.12	.33	196	.07	.39	231	.08	.28	144	.09	.29	717	.12	.33
Counselors discourage nontraditional choices	State Level Personnel*	61	.07	.25	78	.04	.19	119	.04	.20	86	.02	.15	344	.04	.20
	LEA Directors	18	.17	.38	29	.10	.31	30	.03	.18	19	.00	.00	96	.07	.26
	LEA Counselors	9	.00	.00	13	.00	.00	16	.00	.00	11	.00	.00	49	.00	.00
	School Counselors	40	.05	.22	46	.07	.25	52	.00	.00	48	.13	.33	186	.06	.24
	School Instructors	146	.04	.20	197	.07	.25	231	.03	.17	144	.04	.20	718	.04	.21
Teacher reluctance to have nontraditional students	State Level Personnel*	61	.08	.28	78	.04	.19	119	.05	.22	86	.09	.29	344	.06	.25
	LEA Directors	18	.00	.00	29	.07	.26	30	.17	.38	19	.05	.23	96	.08	.28
	LEA Counselors	9	.00	.00	13	.00	.00	16	.06	.25	11	.00	.00	49	.02	.14
	School Counselors	40	.08	.27	46	.02	.15	52	.02	.14	48	.02	.14	186	.03	.18
	School Instructors	146	.05	.21	197	.07	.26	231	.08	.27	144	.02	.14	718	.06	.23
Sex a determiner for work-study placement, etc.	State Level Personnel*	61	.31	.47	78	.26	.44	119	.24	.43	86	.23	.42	344	.25	.44
	LEA Directors	18	.22	.43	29	.31	.47	30	.27	.45	19	.21	.42	96	.26	.44
	LEA Counselors	9	.33	.50	13	.15	.38	16	.06	.25	11	.36	.50	49	.20	.41
	School Counselors	40	.23	.42	46	.24	.43	52	.19	.40	48	.25	.44	186	.23	.42
	School Instructors	146	.27	.44	196	.32	.47	230	.27	.44	144	.26	.44	716	.28	.45

*State Director responses are not included in any of the above State Level Personnel.

Table D.2c

MEAN PROPORTION OF COUNSELORS AND TEACHERS IN DIFFERENT TYPES OF SCHOOLS THINKING THERE ARE CIRCUMSTANCES IN WHICH EACH PRACTICE IS JUSTIFIABLE

PRACTICE	RESPONDENT	Vocational High School			Comprehensive High School			Technical Institutes			Junior/Community College			Vocational Center			Junior High School			TOTAL		
		N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
Feeder counselors suggest different options	Counselors	10	.50	.53	130	.18	.38	4	.0	.0	26	.23	.43	14	.57	.51	2	.0	.0	186	.23	.42
	Teachers	44	.11	.32	428	.13	.34	24	.17	.38	93	.13	.34	120	.17	.37				709	.14	.34
Feeder counselors discourage non-traditional options	Counselors	10	.0	.0	130	.06	.24	4	.0	.0	26	.12	.33	14	.14	.36	2	.0	.0	186	.07	.26
	Teachers	44	.07	.26	428	.01	.12	24	.08	.28	93	.06	.25	120	.06	.24				709	.03	.18
Rules denying admission on basis of sex	Counselors	10	.0	.0	130	.05	.23	4	.0	.0	26	.0	.0	14	.0	.0	2	.0	.0	186	.04	.19
	Teachers	44	.07	.26	430	.10	.30	24	.0	.0	92	.03	.18	120	.08	.28				710	.08	.27
Quotas limiting admission	Counselors	10	.0	.0	130	.03	.17	4	.0	.0	26	.12	.33	14	.07	.27	2	.0	.0	186	.04	.20
	Teachers	44	.16	.37	429	.08	.28	24	.0	.0	93	.03	.18	120	.06	.24				710	.07	.26
Unwritten understandings	Counselors	10	.0	.0	130	.09	.29	4	.0	.0	26	.04	.20	14	.0	.0	2	.0	.0	186	.07	.26
	Teachers	44	.09	.29	429	.07	.26	24	.08	.28	93	.10	.30	120	.08	.28				710	.08	.27
Counselors suggest traditional options	Counselors	10	.10	.32	130	.15	.36	4	.0	.0	26	.08	.27	14	.43	.51	2	.0	.0	186	.16	.36
	Teachers	44	.14	.35	429	.12	.33	24	.0	.0	93	.11	.31	120	.13	.34				710	.12	.32
Counselors discourage nontraditional choices	Counselors	10	.0	.0	130	.08	.28	4	.0	.0	26	.0	.0	14	.0	.0	2	.0	.0	186	.06	.24
	Teachers	44	.07	.26	430	.04	.20	24	.04	.20	93	.05	.23	120	.05	.22				711	.05	.21
Teacher reluctance to have nontraditional students	Counselors	10	.10	.32	130	.02	.15	4	.0	.0	26	.04	.20	14	.07	.27	2	.0	.0	186	.03	.18
	Teachers	44	.14	.35	430	.04	.21	24	.13	.34	93	.02	.15	120	.10	.30				711	.06	.24
Sex a determiner for work-study placement, etc.	Counselors	10	.10	.32	130	.28	.45	4	.0	.0	26	.15	.37	14	.07	.27	2	.0	.0	186	.23	.42
	Teachers	44	.30	.46	428	.27	.44	24	.25	.44	93	.27	.45	120	.34	.48				709	.28	.45

Table D.2a shows that 25% of state level personnel feel there are circumstances in which taking the sex of students into consideration in determining the type of work-study, cooperative education, or job placements provided is justifiable. By USOE region, the range is from 16 percent in regions IV and VII to 31 percent in region X. The practice which is seen to be next most justifiable is the tendency for counselors to suggest traditional options to male and female students undecided as to a career. This was thought to be justifiable by more than 12 percent or more of state level respondents in regions VI, VII, and X.

Table D.2b presents a comparison, by region, of the responses of state level personnel, LEA directors and counselors, and school counselors and instructors. As in table D.2a, the practices which are felt justifiable by the greatest percentage of respondents are sex being used as a determinant in the type of placements arranged, and counselors having a tendency to suggest traditional options to male and female students. Very few respondents think it is justifiable to discourage an already interested student from a nontraditional path; many more find it justifiable for counselors to suggest traditional options to students who are undecided as to a career.

Table D.2c presents the same data for school counselors and teachers, by type of school. Looking at the total column, it can be seen counselors generally feel that the practices referring to them are more justifiable than do teachers. For example, 23% of counselors feel it is justifiable for feeder school counselors to suggest traditional options to students; 14% of teachers think so. Sixteen percent of counselors feel this practice is justifiable for vocational school counselors; 12% of teachers do. With respect to the practices of feeder and vocational school counselors discouraging nontraditional choices, the percentages who feel they are justifiable are not as great, but the pattern is still present (7% and 6% of the counselors; 3% and 5% of the teachers). Similarly, more teachers than counselors feel it is justifiable for teachers to be reluctant about having nontraditional students in their classes. However, it must be pointed out that the percentages are very small, 6% and 3% respectively.

In summary, state staff, as opposed to LEA and school staff, are most likely to feel the inequitable practices are common. It might be pointed out that all of the practices take place at the local or school level because they deal directly with students. Counselors think teacher reluctance to have nontraditional students in their courses is more common than teachers do, and teachers are more likely than counselors to feel that counselors engage in inequitable practice. Thus there appears to be a tendency to feel that others are less "enlightened" about sex bias.

Few individuals at any level feel that there are circumstances in which these practices are justifiable. The exception being that approximately a quarter of all respondents feel it is justifiable to take the sex of a student into consideration when determining the type of work study, cooperative education, or job placement that is arranged. It is possible that respondents think this justifiable in a pro-equity sense. That is, work study and cooperative education can be used in a creative way to expose students to non-traditional options.

Correlations with Activity

How do perceptions of the frequency of inequitable practices, and their perceived justifiability, correlated with activities undertaken to encourage sex equity.* If the existence of inequitable practices is felt to be high, does this relate to a higher or lower activity level? If practices are felt to be justifiable, how does this correlate with activity to reduce inequities? Tables D.3a through D.3d present these correlations. Table D.3a presents the correlations of state personnel responses with the overall state activity index.

There are two significant positive correlations between perceived frequency and overall activity, and two significant negative correlations between perceived justifiability and activity. The positive correlations mean that the more frequent the inequity was perceived to be, the more activity there was to overcome inequity (or conversely, the lower the perceived frequency the lower the activity). The two significant positive correlations indicate that in these instances, states are responding to perceived need: if the inequitable practice is perceived to be commonly present, they are taking action, and vice versa. It is interesting to note that the two practices which correlate positively with activity are the two most clearly illegal activities--rules and quotas which deny or limit admission to courses or programs on the basis of sex.

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*For ease in discussion the scale for perceived frequency was reversed so that high scores reflect high perceived frequency.

The two significant negative correlations between perceived justifiability and state activity indicate that the more a practice is felt to be justifiable, the lower the state activity, or the lower the justifiability, the higher the activity. The two practices whose perceived justifiability are significantly negatively correlated with overall state activity are: quotas limiting the number of males or females admitted to certain courses, and unwritten understandings that some courses or programs are for males and others for females even though there is no formal policy to that effect. The second of these, "Unwritten Understandings," describes perhaps the most subtle form of stereotyping, and it is noteworthy that state level perceptions regarding this practice correlate most highly with state level activity.

Table D.3b shows how perceptions of these practices correlate with the individual State Activity Indexes which contribute to the overall index. The two individual indexes which are most significantly correlated with perceptions of inequities are Index 1.2, Providing Incentives to Schools, and 1.7, Employer and Community Liaison Activities. Providing incentives to schools to eliminate inequities is positively correlated with perceived prevalence of limiting quotas, unwritten understandings, counselors discouraging nontraditional choices, and sex being used to determine the types of placements. The more common these four practices are perceived to be, the more activity there is to provide incentives to the schools to eliminate them.

The State Level Activity Index on Employer and Community Liaison Activities is significantly negatively correlated with perceived reluctance by teachers to have nontraditional students in their courses. Thus, the less reluctant teachers are perceived to be, the more likely the state is to engage in such liaison activities. All other significant correlations

Table D.3a

CORRELATIONS OF OVERALL STATE ACTIVITY INDEX (1.0) WITH STATE PERSONNEL RESPONSES TO QUESTIONS ABOUT THE FREQUENCY AND JUSTIFIABILITY OF SEVEN PRACTICES

(N=50)

Practice	Correlation with Index 1.0 Perceived Frequency of Practice	 Perceived Justifiability of Practice
1. Rules or regulations denying admission to certain courses on the basis of sex	.269*	-.199
2. Quotas limiting the number of males or females admitted to certain courses or programs	.335**	-.313**
3. Unwritten understandings that some courses or programs are for males and others for females, even though there is no formal policy to that effect	.090	-.479***
4. A tendency for counselors to suggest traditional options to male and female students undecided as to a career	-.082	-.219
5. A tendency for counselors to discourage already interested students from entering nontraditional programs	-.013	-.152
6. A reluctance by teachers to have nontraditional students in their courses	-.101	-.220
7. A tendency to take the sex of the student into consideration in determining the type of work-study cooperative education, or job placements provided for students	.024	-.185

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*Significant at .10 level (2-tail test; Fisher's z)

**Significant at .05 level (2-tail test; Fisher's z)

***Significant at .01 level (2-tail test; Fisher's z)

Table D.3b

CORRELATIONS OF INDIVIDUAL STATE ACTIVITY INDEXES WITH STATE PERSONNEL RESPONSES TO QUESTIONS ABOUT THE FREQUENCY AND JUSTIFIABILITY OF SEVEN PRACTICES

(N = 50)

No.	INDEX	PRACTICE													
		Rules denying admission		Quotas limiting admission		Unwritten Understandings		Counselors suggest traditional options		Counselors discourage nontraditional options		Teacher reluctance to have nontraditional students in courses		Sex used to determine type of placement	
		Freq.	Just.	Freq.	Just.	Freq.	Just.	Freq.	Just.	Freq.	Just.	Freq.	Just.	Freq.	Just.
1.1	Internal Affirmative Action	.198	.276	.162	-.069	.150	-.059	.176	-.374**	.017	-.006	.0[illegible]8	.105	.058	-.085
1.2	Incentive to Schools	.254	-.266	.395**	-.075	.326*	-.254	.194	-.302*	.309*	-.122	.082	-.050	.307*	-.152
1.5	Teacher Training and Awareness	.193	-.197	.169	-.203	-.013	-.293*	.039	-.192	.050	-.118	.193	-.177	.053	.017
1.7	Employer and Community Liaison Activities	.045	.034	-.011	-.443**	-.058	-.242	-.141	-.139	-.229	-.353**	-.317**	-.342*	-.217	-.291*
1.8	Title IX Review	.141	.032	.079	.036	.071	.085	-.086	.150	-.003	.255	-.030	.182	.072	.084
1.9	Model Building/Research	.211	-.153	.270	-.193	.197	-.238	.157	-.079	.010	-.223	.023	-.115	.088	-.153
1.10	Monitoring/Review/Data Collection	.159	-.145	.272	-.317*	.017	-.234	.035	.027	-.120	-.171	-.207	-.140	.123	-.069
1.11	Financial Commitment to Equity	.008	-.293*	.060	-.369**	.022	-.357**	-.014	-.043	.091	.047	.047	-.053	.022	.021
1.12	Advisory Council Makeup and Activities	.200	-.207	.219	.094	-.189	-.434**	-.165	-.151	-.075	-.120	.024	-.283*	-.129	-.255
1.13	Status of Sex Equity Coordinator	-.016	-.112	.117	-.080	-.056	-.454**	-.269	-.029	-.117	-.021	.248	-.264	-.252	-.076

*Significant at the .05 level (2-tail t-test)

**Significant at the .01 level (2-tail t-test)

Table D.3c

CORRELATIONS OF INDIVIDUAL SCHOOL ACTIVITY INDEXES WITH SCHOOL PERSONNEL RESPONSES TO QUESTIONS ABOUT THE FREQUENCY AND JUSTIFIABILITY OF NINE PRACTICES

N = 100

PRACTICE		SCHOOL ACTIVITY INDEX						
		3-1 Internal Affirmative Action	3-3 Awareness and Support Programs for Students	3-4 Awareness and Support Programs for Older Women	3-5 Teacher Awareness Activities	3-7 Employer and Community Liaison Activities	3-8 Title IX Review Activities	3-0 Overall Index
Rules denying admission	Freq.	.156	.063	.150	.231*	.063	.369**	.272**
	Just.	-.168	-.202*	.109	-.041	-.136	-.153	-.153
Quotas limiting admission	Freq.	.030	.047	.096	.058	-.053	.117	.073
	Just.	-.039	-.214*	.050	.080	.002	-.137	-.070
Unwritten understandings	Freq.	.037	-.031	-.033	-.093	.082	.050	.001
	Just.	-.141	-.191	-.025	.105	-.021	.108	-.041
Vocational school counselors suggest traditional options	Freq.	.015	-.212*	.063	-.024	-.056	.006	-.064
	Just.	-.109	-.060	.040	.182	.043	-.053	.014
Vocational school counselors discourage nontraditional choices	Freq.	-.017	-.197*	-.050	.088	-.039	-.020	-.065
	Just.	-.068	-.048	.127	-.150	.017	-.101	-.067
Teacher reluctance to have nontraditional students in courses	Freq.	.081	-.002	.024	-.062	-.043	.028	.004
	Just.	-.109	-.121	.021	-.012	-.060	-.050	-.083
Sex used to determine placements	Freq.	.152	.014	.210*	-.038	-.024	.083	.092
	Just.	-.068	.063	-.112	.016	.171	.049	.037
Feeder school counselors support traditional options	Freq.	-.042	-.057	.022	-.007	-.027	.085	-.009
	Just.	-.099	.027	-.063	.048	-.054	-.074	-.055
Feeder school counselors discourage traditional options	Freq.	-.161	-.072	-.085	-.048	-.093	.025	-.118
	Just.	-.135	-.100	-.083	.017	-.110	-.247**	-.171

*Significant at $p > .05$

**Significant at $p > .01$

with perceived frequency have been in a positive direction, indicating that states are responding to the need to eliminate these practices. In contrast, the attitudes of teachers toward nontraditional students appears to be an enabling factor with respect to engaging in employer liaison activities.

Similar correlations were run between the school activity indexes and perceived frequency and justifiability of these practices as perceived by school staff. The results are presented in Table D.3c. These correlations show six which are statistically significant with frequency and three with justifiability. All of the justifiability correlations are negative. Four of the six frequency correlations are positive. There are, however, two negative correlations between school level activity and the perceived frequency of counselors suggesting traditional options and discouraging nontraditional choices. These negative correlations suggest that where these practices are perceived to be rare, there is more activity.

In summary, the trend in the data at the SEA and school levels is that when individuals perceive inequitable practices to be common, and when they feel these practices are not justifiable, there is more activity. This suggests that when inequities exist, and when people are more aware or cognizant of them, they are more motivated to work at eliminating them. In other words, it seems likely that raising awareness with respect to inequities which may exist will correlate with higher activity levels.

Which Practices Have Changed Most and Which Are Still in Need of Change?

To determine whether people perceived that progress had been made with respect to these practices, respondents were asked which practice in their opinion had improved the most during the past five years, and also, which practice was still most in need of change. The results are presented in Tables D.4a through D.4d.

At the state level, the largest percentage of respondents feel that rules denying admission to courses on the basis of sex have changed the most, for the better, in the past five years (Table D.4a). In descending order this is followed by a change in unwritten understandings that some courses are for males and others for females, and a reluctance by teachers

Table D.4a

NUMBER AND PERCENT OF STATE LEVEL RESPONDENTS THINKING PRACTICE HAS CHANGED THE MOST IN THE LAST FIVE YEARS

PRACTICE		Sex Equity Coordinator	Professional Development	Research	Health	Home Economics	Business	Distributive Education	Technical	Trade and Industry	Agriculture	Combined	Counseling and Guidance	Other	TOTAL
Rules denying admission	N	28	13	9	6	7	7	2	1	7	6	0	13	0	99
	%	56.0	29.5	17.6	31.6	29.2	28.0	11.1	11.1	23.3	27.3	0	28.9	0	28.8
Quotas limiting admission	N	1	1	1	1	3	1	1	0	0	1	0	3	0	13
	%	2.0	2.3	2.0	5.3	12.5	4.0	5.6	0	0	4.5	0	6.7	0	3.8
Unwritten understandings	N	7	11	22	5	4	4	3	3	9	6	2	9	0	85
	%	14.0	25.0	43.1	26.3	16.7	16.0	16.7	33.3	30.0	27.3	66.7	20.0	0	24.7
Counselors suggest traditional options	N	3	5	6	1	1	1	1	0	1	2	0	10	1	32
	%	6.0	11.4	11.8	5.3	4.2	4.0	5.6	0	3.3	9.1	0	22.2	25.0	9.3
Counselors discourage nontraditional options	N	0	0	2	1	2	2	0	1	1	1	0	2	1	13
	%	0	0	3.9	5.3	8.3	8.0	0	11.1	3.3	4.5	0	4.4	25.0	3.8
Teacher reluctance to have nontraditional students	N	10	10	6	2	6	4	1	4	10	4	1	3	2	63
	%	20.0	22.7	11.8	10.5	25.0	16.0	5.6	44.4	33.3	18.2	33.3	6.7	50.0	18.3
Sex considered in placement, etc.	N	0	2	1	0	0	3	6	0	2	1	0	2	0	17
	%	0	4.5	2.0	0	0	12.0	33.3	0	6.7	4.5	0	4.4	0	4.9
No choice	N	1	2	4	3	1	3	4	0	0	1	0	3	0	22
	%	2.0	4.5	4.8	15.8	4.2	12.0	22.2	0	0	4.5	0	6.7	0	6.4
TOTAL	N	50	44	51	19	24	25	18	9	30	22	3	45	4	344
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

Table D.4b

NUMBER AND PERCENT OF STATE LEVEL RESPONDENTS THINKING PRACTICE IS MOST IN NEED OF CHANGE

PRACTICE*		Sex Equity Coordinator	Professional Development	Research	Health	Home Economics	Business	Distributive Education	Technical	Trade and Industry	Agriculture	Combined	Counseling and Guidance	Other	TOTAL
Rules denying admission	N	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	%	0	0	0	0	0	4.0	0	0	0	0	0	0	0	0.3
Quotas limiting admission	N	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	%	0	0	2.0	0	0	0	0	0	0	0	0	0	0	0.3
Unwritten understandings	N	13	9	15	0	6	7	0	0	3	2	1	15	2	73
	%	26.5	20.5	30.0	0	25.0	28.0	0	0	10.0	9.1	33.3	33.3	50.0	21.3
Counselors suggest traditional options	N	19	19	14	10	9	13	11	4	14	11	1	2	1	128
	%	38.8	43.2	78.0	52.6	37.5	52.0	55.6	44.4	46.7	50.0	33.3	4.4	25.0	37.3
Counselors discourage nontraditional options	N	0	1	2	3	3	1	2	0	4	3	0	2	0	21
	%	0	2.3	4.0	15.8	12.5	4.0	11.1	0	13.3	13.6	0	4.4	0	6.1
Teacher Reluctance to have nontraditional students	N	10	7	8	1	4	1	1	2	4	0	1	14	0	53
	%	20.4	15.9	16.0	5.3	16.7	4.0	5.6	22.2	13.3	0	33.3	31.1	0	15.5
Sex considered in placement, etc.	N	6	4	6	3	1	1	2	1	2	2	0	9	1	38
	%	12.2	9.1	12.0	15.8	4.2	4.0	11.1	11.1	6.7	9.1	0	20.0	25.0	11.1
No choice	N	1	4	4	2	1	1	3	2	3	4	0	3	0	28
	%	2.0	9.1	8.0	10.5	4.2	4.0	16.7	22.2	10.0	18.2	0	6.7	0	8.1
TOTAL	N	50	44	50	19	24	25	18	9	30	22	3	45	4	343
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table D.4c

NUMBER AND PERCENT OF LOCAL EDUCATION AGENCY AND SCHOOL LEVEL RESPONDENTS THINKING THE PRACTICE HAS CHANGED MOST IN LAST FIVE YEARS

PRACTICE		LEA Director	LEA Counselor	School Counselor	Health Teachers	Home Economics Teachers	Business Teachers	Distributive Education Teachers	Technical Teachers	Trade and Industry Teachers	Agriculture Teachers	Combined/ Other Teachers	TEACHER TOTAL
Rules denying admission	N	29	11	43	5	28	28	7	6	47	5	3	129
	%	32.2	23.4	25.9	12.8	39.4	21.1	20.6	22.2	23.3	15.6	37.5	23.6
Quotas limiting admission	N	3	2	4	3	2	3	0	0	5	0	1	14
	%	3.3	4.3	2.4	7.7	2.8	2.3	0	0	2.5	0	12.5	2.6
Unwritten understandings	N	30	8	39	14	18	58	12	10	66	15	1	194
	%	33.3	17.0	23.5	35.9	25.4	43.6	35.3	37.0	32.7	46.9	12.5	35.5
Counselors suggest traditional options	N	8	8	10	7	9	18	3	6	18	1	0	62
	%	8.9	17.0	6.0	17.9	12.7	13.5	8.8	22.2	8.9	3.1	0	11.4
Feeder school counselors suggest traditional options	N	--	5	18	1	5	5	1	0	12	2	0	26
	%	--	10.6	10.8	2.6	7.0	3.8	2.9	0	5.9	6.3	0	4.8
Counselors discourage nontraditional options	N	1	1	9	1	1	1	1	0	5	2	0	11
	%	1.1	2.1	5.4	2.6	4.2	0.8	2.9	0	2.5	6.3	0	2.0
Feeder school counselors discourage nontraditional options	N	--	1	1	0	0	3	0	0	1	0	1	5
	%	--	2.1	0.6	0	0	2.3	0	0	0.5	0	12.5	0.9
Teacher Reluctance to have nontraditional students	N	13	8	31	4	5	9	3	3	30	6	1	61
	%	14.4	17.0	18.7	10.0	7.0	6.8	8.8	11.1	14.9	18.8	12.5	11.2
Sex considered in placement	N	6	3	11	4	3	8	7	2	18	1	1	44
	%	7.6	6.4	6.7	10.3	4.2	6.0	20.6	7.4	8.9	3.1	12.5	8.1
TOTAL	N	90	47	166	39	71	133	34	27	202	32	8	546
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table D.4d

NUMBER AND PERCENT OF LOCAL EDUCATION AGENCY AND SCHOOL LEVEL RESPONDENTS THINKING PRACTICE IS MOST IN NEED OF CHANGE

PRACTICE		LEA Director	LEA Counselor	School Counselor	Health Teachers	Home Economics Teachers	Business Teachers	Distributive Education Teachers	Technical Teachers	Trade and Industry Teachers	Agriculture Teachers	Combined/ Other Teachers	TEACHER TOTAL
Rules denying admission	N	1	0	2	0	3	4	1	1	5	0	0	14
	%	1.3	0	1.5	0	4.6	3.1	2.9	4.3	2.7	0	0	2.7
Quotas limiting admission	N	0	0	2	0	0	1	1	0	6	2	0	10
	%	0	0	1.5	0	0	0.8	2.9	0	3.2	6.5	0	1.9
Unwritten understandings	N	17	8	45	4	19	39	3	2	49	7	1	124
	%	21.3	18.6	32.8	10.8	29.2	30.0	8.8	8.7	26.2	22.6	12.5	24.1
Counselors suggest traditional options	N	25	5	18	4	7	25	2	4	22	7	1	72
	%	31.3	11.6	13.1	10.8	10.8	19.2	5.9	17.4	11.8	22.6	12.5	14.0
Feeder school counselors suggest traditional options	N	--	6	13	11	8	15	4	3	31	3	4	79
	%	—	14.0	9.5	29.7	12.3	11.5	11.8	13.0	16.6	9.7	50.0	15.3
Counselors discourage nontraditional options	N	6	0	2	2	3	5	4	3	7	1	0	25
	%	7.5	0	1.5	5.4	4.6	3.8	11.8	13.0	3.7	3.2	0	4.9
Feeder school counselors discourage nontraditional options	N	--	2	4	2	5	4	3	1	15	1	1	32
	%	--	4.7	2.9	5.4	7.7	3.1	8.8	4.3	8.0	3.2	12.5	6.2
Teacher reluctance	N	15	11	21	4	8	11	9	2	26	4	0	64
	%	18.8	25.6	15.3	10.8	12.3	8.5	26.5	8.7	13.9	12.9	0	12.4
Sex considered in placement	N	16	11	30	10	12	26	7	7	26	6	1	95
	%	20.0	25.6	21.9	27.0	18.5	20.0	20.6	30.4	13.9	19.4	12.5	18.5
TOTAL	N	80	43	137	37	65	130	34	23	187	31	8	515
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

to have nontraditional students in their courses. Virtually every category of state level personnel sees improvements in these areas.

When asked what practice was still most in need of change (Table D.4b), 37.3% of SEA personnel group pointed to counselors suggesting traditional options to male and female students undecided as to a career. The practice next most in need of changing concerned unwritten understandings that some courses are for females while others are for males, even though there is no formal policy to that effect (21.3% indicated this). Third was a reluctance by teachers to have nontraditional students in their courses (15.5%). Note that teacher reluctance scores fairly high in both categories: it has changed a lot, but it is still in need of change. Every category of state level personnel except counseling and guidance personnel said that they felt the tendency for counselors to suggest traditional options to students was most in need of change. Only 4.4% of counselors think this is so. The counselors feel that unwritten understandings and teacher reluctance to have nontraditional students in their courses were most in need of change. While 31.15 of counselors think that teacher reluctance is most in need of change, only 15.5 percent of state respondents as a whole feel this way. Thus again counselors see others as needing change, while other groups feel this is most true of counselors.

Tables D.4c and D.4d present the same information for local education agency school level respondents. As with the state level personel, local and school level personnel feel that unwritten understandings, rules denying admission, and teacher reluctance have changed most in the past five years. Table D.4d shows that local and school level personnel are not as consistent as state level personnel in their opinions regarding which practice is most in need of change. When teachers are considered as a group, they agree with school counselors that unwritten understandings are most in need of change. Local directors feel that the tendency for counselors to suggest traditional options is most in need of change, while LEA counselors feel teacher reluctance to have nontraditional students taking their course, and taking sex into consideration in determining placements are most in need of change.

Thus, there is general agreement from a quarter to a third of the respondents at all levels that rules denying admission, unwritten understandings, and teacher reluctance to instruct nontraditional students have changed for the better in the past five years. However unwritten understandings and teacher reluctance are still felt to be most in need of change.

An Outside Perspective

The preceding sections have described inequitable practices within vocational education as perceived by individuals within the vocational education system. Earlier chapters provided an analysis of state, local, and school level efforts to achieve sex equity. Again, these efforts were based on the reports of individuals in vocational education. Sometimes an outside perspective can be valuable in assessing inequities and the efforts to reduce them. To this end, we solicited the views of individuals associated with various national organizations and agencies which are also concerned with issued of sex equity.

From a list of 60 organizations, 9 were selected because of their experience and concern for sex equity as well as for civil rights, minority rights, and labor issues. The 9 organizations and agencies which were contacted are:

AFL-CIO
Human Resources and Development Institute
Washington, D.C.

Federal Education Project
Lawyers' Committee for Civil Rights Under Law
Washington, D.C.

Mexican American Legal Defense and Educational Fund
The Chicana Rights Project
San Antonio, Texas

NAACP Legal Defense and Educational Fund, Inc.
Washington, D.C.

National Advisory Council on Women's Educational Programs
Washington, D.C.

National Coalition for Women and Girls in Education
Washington, D.C.

National Urban League
New York, New York

Project PEER of the National Organization of Women Legal
Defense and Education Fund
Washington, D.C.

U.S. Department of Labor
Women's Bureau
Washington, D.C.

Each respondent's perceptions of sex discrimination and sex stereotyping in vocational education, and of progress being made in this area were sought. The perceptions were gathered during telephone interviews or in writing.

All of these organizations have initiated or participated in activities designed to reduce sex inequities in vocational education. Primarily these activities have taken the form of lobbying, monitoring legislation, litigation, dissemination of equity related information, and developing products or conducting workshops which focus on equity issues.

Seven of the nine representatives expressed some form of disenchantment with vocational education's efforts to achieve sex equity. Two placed the blame on officials at the federal level for not providing more guidance and pressure to comply with the legislation. Another two organizations felt that the vocational education establishment at the local level is to blame for lack of progress. One of these representatives faulted vocational educators for not preparing women for higher paying nontraditional occupations because they believe individuals so prepared are not placeable. The other commented that vocational educators are reluctant to use limited resources to train the students whom they perceive to be least likely to be placed--the women in a nontraditional occupational area.

The representatives of the organizations were also asked how the efforts of vocational education compare with those of other institutions, specifically elementary, secondary, and higher education, employers, and labor unions. There was no clear agreement among the respondents. Representatives of three of the organizations felt that while vocational education's efforts have not been sufficient, they are better than those of the other groups mentioned above. One respondent felt there was no difference in the level of effort made by all of these groups including vocational education. Two felt that vocational education was doing less to achieve sex equity than the above mentioned groups, with the exception of employers and labor unions which were felt to have done virtually nothing. The efforts of labor unions and employers to achieve sex equity received the strongest criticism from the respondents.

The representatives of these organizations were also asked to evaluate the greatest constraints to achieving sex equity in vocational education. Mores of the community at large, particularly the view of parents, were seen to provide the largest impediments. There was a general feeling that members of the community fail to understand that the vast majority of girls will have to earn a living and/or support a family.

Impediments to change within vocational education were thought to be the domination of male instructors and administrators, and stereotyped materials. Within the entire educational community, counseling, testing, tracking, and lack of enforcement of Title IX of the 1972 Education Amendments were cited as major constraints. Employers' attitudes were felt to be a serious problem, but one representative felt that affirmative action requirements are helping to overcome some of this stereotyping.

In general, the representatives of these organizations feel that there must be stronger enforcement of the legislation pertaining to sex equity. Networks of concerned individuals should be formed to ensure that vocational education will address the problem and accept its responsibility to help remediate it.

PERCEPTIONS REGARDING NONTRADITIONAL STUDENTS

The next few topics relate to how well students fare once they are enrolled in a course which is nontraditional for persons of their sex. How well are they accepted by other students? Are they more or less motivated to succeed? And finally, are they more or less likely to drop out? The perceptions of counselors, instructors, and students were gathered in order to provide some answers to these questions.

Acceptance of Nontraditional Students

Both instructors and counselors were asked how well nontraditional males and females are accepted by other students in those courses. The results are presented in Tables D.5a through D.5d. Approximately 85% of counselors feel that nontraditional males and females are accepted moderately well to very well (Table D.5a). Table D.5b shows the responses for counselors in different school settings. At vocational high schools and to some extent in vocational centers, counselors report nontraditional females are accepted better than nontraditional males. There are no major differences in perceived acceptance at the comprehensive high schools, technical institutes, and junior/community colleges.

When the responses of instructors are considered (Table D.5c) it is interesting to note 20% and 34% feel they have too little experience with nontraditional female and male students respectively to judge. With respect to nontraditional females, slightly more than half the instructors in all types of schools feel they are very well accepted. The same is generally true with respect to nontraditional males. The only major exception is at the vocational high schools where only 25% of instructors feel nontraditional males are accepted very well.

Table D.5d allows a comparison of acceptance as perceived by instructors in the various occupational areas. Instructors in the traditionally male areas of technical, trade and industry, and agriculture report that nontraditional females are very well accepted (91.2%, 61.4%, and 74.5%, respectively). Instructors in the traditionally female areas of health, home economics, and business also report high acceptance of nontraditional males (78.7%, 76.1%, and 70.7%, respectively). Very few instructors in any occupational areas report that nontraditional students are poorly or very poorly accepted.

In summary, the general view of counselors and instructors is that nontraditional students are quite well accepted. There is a trend toward

Table D.5a

ACCEPTANCE OF NONTRADITIONAL FEMALES AND MALES AS PERCEIVED BY COUNSELORS

NONTRADITIONAL STUDENTS		HOW WELL ACCEPTED						
		Very Poorly	Poorly	Don't Know	Moderately Well	Very Well	Too Little Experience to Judge	TOTAL
Nontraditional Females	N	1	5	4	67	98	13	188
	%	0.5	2.7	2.1	35.6	52.1	6.9	100
Nontraditional Males	N	2	9	1	64	94	18	188
	%	1.1	4.8	0.5	34.0	50.0	9.6	100

Table D.5b

ACCEPTANCE OF NONTRADITIONAL FEMALES AND MALES AS PERCEIVED BY COUNSELORS FROM DIFFERENT TYPES OF SCHOOLS

TYPE OF SCHOOL		HOW WELL ACCEPTED													
		Very Poorly		Poorly		Don't Know		Moderately Well		Very Well		Too Little Experience to Judge		TOTAL	
		Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males
Vocational High School	N	0	0	1	1	0	0	1	2	7	2	1	5	10	10
	%	0	0	10.0	10.0	0	0	10.0	20.0	70.0	20.0	10.0	50.0	100.0	100.0
Comprehensive High School	N	0	0	3	5	2	0	55	51	64	67	7	8	131	131
	%	0	0	2.3	3.8	1.5	0	42.0	38.9	48.9	51.1	5.3	6.1	100.0	100.0
Technical Institute	N	0	0	0	0	0	0	0	0	4	4	0	0	4	4
	%	0	0	0	0	0	0	0	0	100.0	100.0	0	0	100.0	100.0
Junior/ Community College	N	1	1	1	2	1	0	5	6	15	14	4	4	27	27
	%	3.7	3.7	3.7	7.4	3.7	0	18.5	22.2	55.6	51.9	14.8	14.8	100.0	100.0
Vocational Center	N	0	0	0	2	0	0	6	5	7	6	1	1	14	14
	%	0	0	0	14.3	0	0	42.9	35.7	50.0	42.9	7.1	7.1	100.0	100.0
TOTAL	N	1	1	5	10	3	0	67	64	97	93	13	18	186	186
	%	0.5	0.5	2.7	5.4	1.6	0	36.0	34.4	52.2	50.0	7.0	9.7	100.0	100.0

Table D.5c

ACCEPTANCE OF NONTRADITIONAL FEMALES AND MALES AS PERCEIVED BY INSTRUCTORS FROM DIFFERENT TYPES OF SCHOOLS

TYPE OF SCHOOL		HOW WELL ACCEPTED													
		Very Poorly		Poorly		Don't Know		Moderately Well		Very Well		Too Little Experience to Judge		TOTAL	
		Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males
Vocational High School	N	1	0	2	1	1	1	6	4	30	11	4	27	44	44
	%	2.3	0	4.5	2.3	2.3	2.3	13.6	9.1	68.2	25.0	9.1	61.4	100.0	100.0
Comprehensive High School	N	2	4	7	13	9	11	83	49	215	229	112	123	428	429
	%	0.5	0.9	1.6	3.0	2.1	2.6	19.4	11.4	50.2	53.4	26.2	28.7	100.0	100.0
Technical Institute	N	0	0	0	2	0	0	4	5	16	13	3	3	23	23
	%	0	0	0	8.7	0	0	17.4	21.7	69.6	56.5	13.0	13.0	100.0	100.0
Junior/ Community College	N	0	0	1	0	0	2	10	3	53	53	29	35	93	93
	%	0	0	1.1	0	0	2.2	10.8	3.2	57.0	57.0	31.2	37.6	100.0	100.0
Vocational Center	N	2	0	2	1	1	2	17	11	60	52	38	54	120	120
	%	1.7	0	1.7	0.8	0.8	1.7	14.2	9.2	50.0	43.3	31.7	45.0	100.0	100.0
TOTAL	N	5	4	12	17	11	16	120	72	374	358	186	242	708	709
	%	0.7	0.6	1.7	2.4	1.6	2.3	16.9	10.2	52.8	50.5	26.3	34.1	100.0	100.0

Table D.5d

ACCEPTANCE OF NONTRADITIONAL FEMALES AND MALES AS PERCEIVED BY INSTRUCTORS IN DIFFERENT OCCUPATIONAL AREAS

INSTRUCTIONAL AREA		HOW WELL ACCEPTED													
		Very Poorly		Poorly		Don't Know		Moderately Well		Very Well		Too Little Experience to Judge		TOTAL	
		Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males	Nontraditional females	Nontraditional males
Health	N	0	0	1	2	0	1	6	2	9	37	31	5	47	47
	%	0	0	2.1	4.3	0	2.1	12.8	4.3	19.1	78.7	66.0	10.6	100.0	100.0
Home Economics	N	0	1	2	3	0	4	14	10	39	67	33	3	88	88
	%	0	1.1	2.3	3.4	0	4.5	15.9	11.4	44.3	76.1	37.5	3.4	100.0	100.0
Business	N	1	2	2	4	2	5	27	22	69	123	73	18	174	174
	%	0.6	1.1	1.1	2.3	1.1	2.9	15.5	12.6	39.7	70.7	42.0	10.3	100.0	100.0
Distributive Education	N	1	0	0	1	1	2	9	5	21	18	11	18	43	44
	%	2.3	0	0	2.3	2.3	4.5	20.9	11.4	48.8	40.9	25.6	40.9	100.0	100.0
Technical	N	0	0	1	0	0	0	0	2	31	12	2	20	34	34
	%	0	0	2.9	0	0	0	0	5.9	91.2	35.3	5.9	58.8	100.0	100.0
Trade and Industry	N	3	1	7	6	7	2	55	28	167	78	33	157	272	272
	%	1.1	0.4	2.6	2.2	2.6	0.7	20.2	10.3	61.4	28.7	12.1	57.7	100.0	100.0
Agriculture	N	0	0	0	1	0	1	9	3	35	21	3	21	47	47
	%	0	0	0	2.1	0	2.1	19.1	6.4	74.5	44.7	6.4	44.7	100.0	100.0
Combined/ Other	N	0	0	0	0	1	1	3	1	5	6	1	2	10	10
	%	0	0	0	0	10.0	10.0	30.0	10.0	50.0	60.0	10.0	20.0	100.0	100.0
TOTAL	N	5	4	13	17	11	16	123	73	376	362	187	244	715	716
	%	0.7	0.6	1.8	2.4	1.5	2.2	17.2	10.2	52.6	50.6	26.2	34.1	100.0	100.0

thinking that nontraditional females are accepted slightly better than nontraditional males, and that the nontraditional male is more likely to be poorly accepted.

Enrollment Preferences of Students

Students were asked to react to the statements that males and females prefer to be enrolled in classes which are predominantly male and female, respectively. (See Tables D.6a and D.6b.) More than half the students, both male and female in all regions, feel that both statements are more true than false. Greater percentages of females feel it is true for males, and greater percentages of males feel it is true for females.

Table D.6c and D.6d show how students enrolled in different types of programs and of different ethnicity and ages responded to these two questions. For all groups, the percentage who feel the statements are usually or always true are very high. Predictably, males enrolled in traditionally female courses are least likely to think it is true that males prefer to be enrolled in classes which are mostly male. However, the percentage who do think so is 63%. Similarly, those students who are least likely to feel the statement is true that females preferred to be enrolled in courses that are mostly female are females in traditionally male programs and males and females in mixed programs. In general, the students who agree most with the statements are males and females who are enrolled in traditionally male and female courses respectively. There is also a trend in the data which shows that the older students are, the less likely they are to agree. There are no major differences for students of the various ethnic groups. Tables D.6e and D.6f show the responses by sex and race. Over 30% of Black and Native American females and Asian males feel it is "always true" that males prefer to be enrolled with other males. Hispanic males are least likely to think this is "always true." Considering female enrollment preferences, over 20% of Black males and females and Hispanic females responded "always true."

Attrition Rates

School counselors were asked if in their experience students enrolled in programs nontraditional to their sex drop out more than traditional

Table D.6a

STUDENT RESPONSE TO THE STATEMENT: MALE VOCATIONAL EDUCATION STUDENTS PREFER TO BE ENROLLED IN CLASSES THAT ARE MOSTLY MALE.

AGREEMENT		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Always or Almost Always True	N	61	82	143	111	130	241	117	151	268	61	54	115	350	417	767
	%	22.1	26.7	24.5	22.1	25.6	23.9	24.1	29.8	27.0	18.7	18.0	18.3	22.0	25.7	23.9
Tends to Be True	N	118	141	259	251	264	515	203	241	444	154	165	319	726	811	1,537
	%	42.8	45.9	44.4	50.0	52.1	51.0	41.8	47.6	44.8	47.1	55.0	50.9	45.6	50.1	47.9
Tends to Be False	N	69	64	133	102	87	189	98	84	182	86	65	151	355	300	655
	%	25.0	20.8	22.8	20.3	17.2	18.7	20.2	16.6	18.3	26.3	21.7	24.1	22.3	18.5	20.4
Always or Almost Always False	N	28	20	48	38	26	64	68	30	98	26	16	42	160	92	252
	%	10.1	6.5	8.2	7.6	5.1	6.3	14.0	5.9	9.9	8.0	5.3	6.7	10.1	5.7	7.0

Table D.6b

STUDENT RESPONSE TO THE STATEMENT: FEMALE VOCATIONAL EDUCATION STUDENTS PREFER TO BE ENROLLED IN CLASSES THAT ARE MOSTLY FEMALE

RESPONSE		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Always or Almost Always True	N	49	54	103	94	89	183	113	117	230	41	41	82	297	301	598
	%	18.0	17.6	17.8	18.8	17.6	18.2	23.3	23.2	23.2	12.6	13.7	13.1	18.8	18.6	18.7
Tends to Be True	N	126	135	261	245	238	483	228	222	450	173	134	307	772	729	1,501
	%	46.3	44.0	45.1	49.1	46.9	48.0	46.9	44.0	45.4	53.2	44.7	49.1	48.8	45.0	46.9
Tends to Be False	N	74	89	163	125	148	273	99	125	224	89	96	185	387	458	845
	%	27.2	29.0	28.2	25.1	29.2	27.1	20.4	24.8	22.6	27.4	32.0	29.6	24.5	28.3	26.4
Always or Almost Always False	N	23	29	52	35	32	67	46	41	87	22	29	51	126	131	257
	%	8.5	9.4	9.0	7.0	6.3	6.7	9.5	8.1	8.8	6.8	9.7	8.2	8.0	8.1	8.0

Table D.6c

STUDENT RESPONSE TO THE STATEMENT:

MALE VOCATIONAL EDUCATION STUDENTS PREFER TO BE ENROLLED IN CLASSES THAT ARE MOSTLY MALE

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL *
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Always True	N	225	45	80	69	213	135	518	177	32	15	24	690	41	35	767
	%	23.1	22.2	19.4	27.8	26.5	23.8	23.3	25.9	20.1	31.3	27.6	25.9	16.2	11.9	23.9
Usually True	N	454	83	189	128	411	272	1141	267	69	18	37	1299	115	122	1537
	%	46.5	40.9	45.9	51.6	51.1	48.0	51.3	39.1	43.4	37.5	42.5	48.9	45.5	41.5	47.9
Usually False	N	202	47	106	41	138	121	430	153	43	11	16	468	74	92	655
	%	20.7	23.2	25.7	16.5	17.1	21.3	19.3	22.4	27.0	22.9	18.4	18.4	29.2	31.3	20.4
Always False	N	95	28	37	10	43	39	137	86	15	4	10	488	23	45	252
	%	9.7	13.6	9.0	4.0	5.3	6.9	6.2	12.6	9.4	8.3	11.5	6.8	9.1	15.3	7.8

TOTAL N 3211
% 100.0

*Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate with .1%.

Table D.6d

STUDENT RESPONSE TO THE STATEMENT:

FEMALE VOCATIONAL EDUCATION STUDENTS PREFER TO BE ENROLLED IN CLASSES THAT ARE MOSTLY FEMALE

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Always True	N	187	43	67	41	169	91	375	170	31	7	15	536	32	29	598
	%	19.3	21.4	16.3	16.5	21.0	16.0	16.9	25.1	19.5	14.9	14.8	20.2	12.7	9.9	18.7
Usually True	N	498	94	180	108	372	249	1111	248	71	22	45	1276	114	110	1501
	%	51.4	46.8	43.7	43.5	46.3	43.9	50.0	36.6	44.7	46.8	51.1	48.1	45.4	37.5	46.9
Usually False	N	216	45	126	79	200	179	591	171	44	16	21	643	85	116	845
	%	22.3	22.4	30.6	31.9	24.9	31.6	26.6	25.2	27.7	34.0	23.9	24.2	33.9	39.6	26.4
Always False	N	68	19	39	20	63	48	144	89	13	2	9	197	20	38	257
	%	7.0	9.5	9.5	8.1	7.8	8.5	6.5	13.1	8.2	4.3	10.2	7.4	8.0	13.0	8.0

TOTAL N 3201

% 100.0

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*Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate with .1%.

Table D.6e

MALE VOCATIONAL STUDENTS PREFER TO BE IN CLASSES THAT ARE MOSTLY MALE

RESPONSES OF STUDENTS BY RACE AND SEX

Response		White		Black		Hispanic		Native American		Asian	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Always true	N	248	270	68	109	10	22	8	7	15	9
	%	22.3	24.2	20.7	30.8	14.1	25.3	28.6	35.0	33.3	21.4
Usually true	N	545	594	125	142	28	41	7	11	16	21
	%	49.1	53.3	38.0	40.1	39.4	47.1	25.0	55.0	35.6	50.0
Usually false	N	236	195	79	74	22	20	9	2	8	8
	%	21.2	17.5	24.0	20.9	31.0	23.0	32.1	10.0	17.8	19.0
Always false	N	82	55	57	29	11	4	4	0	6	4
	%	7.4	4.9	17.3	8.2	15.5	4.6	14.3	0.0	13.3	9.5
TOTAL	N	1111	1114	329	354	71	87	28	20	45	42
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table D.6f

FEMALE VOCATIONAL STUDENTS PREFER TO BE ENROLLED IN CLASSES THAT ARE MOSTLY FEMALE

RESPONSES OF STUDENTS BY RACE AND SEX

Response		White		Black		Hispanic		Native American		Asian	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Always true	N	196	179	76	94	12	19	5	2	6	7
	%	17.7	16.1	23.4	26.6	16.9	21.8	18.5	10.0	13.0	16.7
Usually true	N	579	531	122	126	33	37	10	12	24	21
	%	52.4	47.7	37.5	35.7	46.5	42.5	37.0	60.0	52.2	50.0
Usually false	N	267	324	80	91	18	26	10	6	11	10
	%	24.1	29.1	24.6	25.8	25.4	29.9	37.0	30.0	23.9	23.8
Always false	N	64	80	47	42	8	5	2	0	5	4
	%	5.8	7.2	14.5	11.9	11.3	5.7	7.4	0.0	10.9	9.5
TOTAL	N	1106	1114	325	353	71	87	27	20	46	42
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

students in those programs. They were asked to respond separately for males in traditionally female programs, and females in traditionally male programs. Tables D.7a and D.7b report these results.

About half the counselors feel that attrition rates are the same for men and women enrolled in traditionally female programs (Table D.7a). A greater percentage of counselors feel nontraditional females drop out more than males in these programs (Table D.7b). Thus, according to school counselors nontraditional females drop out more than do nontraditional males.

Students were also asked for their perceptions of the attrition rates of nontraditional students. These perceptions are presented in Tables D.7c and D.7d. The responses of male and female students enrolled in traditionally male, female, and mixed programs are displayed. Perhaps the most remarkable feature of these data is the consistent distribution of the responses. Approximately equal percentages of students think nontraditional students drop out more than others in those programs, as think they do not drop out more. Variations within subgroup of students are not great. These data can be interpreted as meaning that in the experience of students there is not an increase in the attrition rates of nontraditional students. However, counselors tend to feel that nontraditional females drop out more.

PERCEPTIONS OF MALE AND FEMALE OPTIONS AND ROLES IN THE LABOR FORCE

Perceptions Regarding Employers

Counselors and instructors were asked to estimate what percentage of employers are willing to hire nontraditional students. These results are presented in Table D.8a. Instructors report more willingness than do counselors; however, even instructors indicate that only about half of the employers are willing to do so. Counselors and instructors in the four regions do not agree on employer willingness to hire. The greatest discrepancies are in the South and West where counselors view the situation much more negatively than instructors.

Table D.7a

ATTRITION RATES OF NONTRADITIONAL MALES AS PERCEIVED BY COUNSELORS

Response		Male Counselors	Female Counselors	Total Counselors
Nontraditional Males Drop Out Less than Females in Those Programs	N	20	17	37
	%	18.2	22.4	19.9
Nontraditional Males Drop Out More than Females in Those Programs	N	22	11	33
	%	20	14.5	17.7
No Difference From Females in Those Programs	N	54	37	91
	%	49.1	48.7	48.9
Don't Know	N	14	11	25
	%	12.7	14.5	13.4
TOTAL	N	110	76	186
	%	100	100	100

Table D.7b

ATTRITION RATES OF NONTRADITIONAL FEMALES AS PERCEIVED BY COUNSELORS

Response		Male Counselors	Female Counselors	Total Counselors
Nontraditional Females Drop Out Less than Males in Those Programs	N	24	12	36
	%	21.6	15.8	19.3
Nontraditional Females Drop Out More than Males in Those Programs	N	30	25	55
	%	27	32.9	29.4
No Difference From Males in Those Programs	N	43	33	76
	%	38.7	43.4	40.6
Don't Know	N	14	6	20
	%	12.6	7.9	10.7
TOTAL	N	111	76	187
	%	100	100	100

Table D.7c

STUDENT RESPONSE TO THE QUESTION: DO FEMALES IN NONTRADITIONAL AREAS DROP OUT MORE THAN FEMALES IN TRADITIONAL AREAS?

RESPONSE		STUDENTS						
		Males in Traditionally Male Courses	Males in Traditionally Female Courses	Males in Mixed Courses	Females in Traditionally Male Courses	Females in Traditionally Female Courses	Females in Mixed Courses	TOTAL
Yes	N	413	76	180	105	325	230	1329
	%	42.4	36.7	43.4	42.3	40.3	40.3	41.3
No	N	441	99	189	111	389	305	1534
	%	45.2	47.8	45.5	44.8	48.2	53.6	47.6
Don't Know	N	121	32	46	32	93	34	350
	%	12.4	15.5	11.1	12.9	11.5	6.0	11.1

Table D.7d

STUDENT RESPONSE TO THE QUESTION: DO MALES IN NONTRADITIONAL AREAS DROP OUT MORE THAN MALES IN TRADITIONAL AREAS?

RESPONSE		STUDENTS						
		Males in Traditionally Male Courses	Males in Traditionally Female Courses	Males in Mixed Courses	Females in Traditionally Male Courses	Females in Traditionally Female Courses	Females in Mixed Courses	TOTAL
Yes	N	419	81	193	108	353	261	1415
	%	43.2	39.1	47.1	43.5	43.8	46.4	44.2
No	N	418	105	173	103	356	250	1413
	%	43.1	50.7	42.2	41.5	44.2	45.8	44.1
Don't Know	N	132	21	44	37	97	44	375
	%	13.6	10.1	10.7	14.9	12.0	7.8	11.7

Correlations were run to see if perceived willingness of employers to hire nontraditional students is related to level of activity in a school. In order to compute the correlations, a mean response for all counselors and for all instructors within a school was computed. These means were then correlated with the corresponding school activity indexes. The perceptions of counselors in a particular school do not correlate significantly with the perceptions of instructors in that school ($r=.125$). Nor do counselor perceptions significantly correlate with any of the school activity indexes. However, the perceptions of instructors correlate significantly on 4 of the 7 correlations, and these correlations are all negative. The indexes, correlation coefficients, and significance levels are reported below:

School level correlations ($n=100$)

3-0	Overall School Index	$r=-.269$ ($p<.01$)
3-1	Internal Affirmative Action	$r=-.340$ ($p<.01$)
3-3	Awareness and Support Activities for Students	$r=-.213$ ($p<.05$)
3-8	Title IX Activities	$r=-.248$ ($p<.01$)

A negative correlation means that the more employers are perceived to be willing to hire nontraditional workers, the more activity there is. (A high mean for employer willingness means employers are perceived to be unwilling; here a negative correlation pairs perceived willingness with high activity.) Thus the data show that greater activity in schools is associated with instructors feeling that employers are willing to hire nontraditional students.

We also asked instructors and counselors whether men and women have the same opportunities to obtain good, well-paying jobs (Table D.8b). Once again, instructors have a more sanguine outlook than do counselors on the matter. This is true for the nation as a whole and in each region. Those instructors and counselors who indicated employment opportunities are not equal, were asked whether males or females have the advantage. Table D.8c presents the results for counselors broken down by region of the country and by sex of the respondent. Clearly counselors perceived men to have the advantage. Table D.8d presents the responses of instructors regarding who has the advantage. Again the direction of bias is reported to be in favor

Table D.8a

COUNSELOR AND INSTRUCTOR PERCEPTIONS OF EMPLOYER WILLINGNESS TO HIRE NONTRADITIONAL STUDENTS

RESPONDENT		AREA				
		North East	North Central	South	West	TOTAL
Counselors	$\bar{X}^*$	3.00	2.38	2.80	2.72	2.72
	N	33	37	40	39	149
	S.D.	1.28	1.16	1.02	1.15	1.56
Instructors	$\bar{X}^*$	3.28	3.23	3.48	3.31	3.34
	N	121	172	200	125	618
	S.D.	1.47	1.42	1.41	1.42	1.43

*Values used in computing means are:

5. Almost all
4. More than half
3. About half
2. Less than half
1. Hardly any
   Don't know (omitted from calculation)

378

Table D.8b

COUNSELOR AND INSTRUCTOR PERCEPTIONS REGARDING MEN AND WOMEN HAVING THE SAME OPPORTUNITIES TO OBTAIN GOOD, WELL-PAYING JOBS

RESPONDENT		AREA				
		North East	North Central	South	West	TOTAL
Counselors	$\bar{X}$*	2.00	1.98	2.71	1.74	1.96
	N	40	45	52	50	187
	S.D.	0.91	0.97	0.96	1.01	0.97
Instructors	$\bar{X}$*	2.90	2.90	2.94	2.95	2.92
	N	147	194	229	144	713
	S.D.	1.03	1.00	1.06	1.08	1.06

*Values used in computing means are:

4. Definitely yes
3. Probably yes
2. Probably not
1. Definitely not

Table D.8c

DIRECTION OF BIAS ACCORDING TO COUNSELORS WHO INDICATED EMPLOYMENT OPPORTUNITIES ARE NOT EQUAL

Counselors in:		Men Have the Advantage		Women Have the Advantage		TOTAL	
		N	%	N	%	N	%
North East	Males	14	93.3	1	6.7	15	100
	Females	16	100.0	0	0	16	100
	Total	30	96.8	1	3.2	31	100
North Central	Males	17	85.0	3	15.0	20	100
	Females	13	100.0	0	0	13	100
	Total	30	90.9	3	9.1	33	100
South	Males	13	100.0	0	0	13	100
	Females	18	94.7	1	5.3	19	100
	Total	31	96.9	1	3.1	32	100
West	Males	25	96.2	1	3.8	26	100
	Females	16	100.0	0	0	10	100
	Total	41	97.6	1	2.4	42	100
Entire Population	Males	69	93.2	5	6.8	74	100
	Females	63	98.4	1	1.6	64	100
	Total	132	95.7	6	4.3	138	100

Table D.8d

DIRECTION OF BIAS ACCORDING TO INSTRUCTORS WHO INDICATED EMPLOYMENT OPPORTUNITIES ARE NOT EQUAL

Instructional Area	Men Have the Advantage		Women Have the Advantage		TOTAL	
	N	%	N	%	N	%
Health	18	66.7	4	33.3	12	100
Home Economics	17	54.8	14	45.2	31	100
Business	46	69.7	20	30.3	66	100
Distributive Education	17	89.5	2	10.5	19	100
Technical	13	81.3	3	18.8	16	100
Trade and Industry	125	92.6	10	7.4	135	100
Agriculture	17	85.0	3	15.0	20	100
Combined/Other	3	100.0	0	0	3	100
TOTAL	246	81.5	56	18.5	302	100

of men. Even when the responses of instructors in traditionally female areas are examined, men are still perceived to have a slight advantage.

To summarize, teachers and counselors feel that only half of all employers are willing to hire nontraditional students. When asked whether men and women have equal opportunities to obtain good, well-paying jobs, teachers tended toward saying "probably yes," while counselors tended to say "probably not." Both teachers and counselors feel that the direction of bias when present is in favor of males.

Student Attitudes About Options and Roles in the Labor Force

Student perceptions regarding employer willingness to hire nontraditional students are presented in Tables D.9a and D.9b. Students in each region feel it tends to be, or is almost always, true that employers are unwilling to hire men for jobs which have traditionally been held by women. While more than half the male and female students feel this way, it is true for greater percentages of male than female students. Still greater percentages of students feel it is true that employers are unwilling to hire females for traditionally male jobs. However, here the difference in perceptions between male and female students are not as great. Thus the data reveal that students feel employers are generally unwilling to hire nontraditional workers, but greater percentages feel it applies more to nontraditional females than males.

Table D.9c and D.9d provide an additional breakdown of these data by student type. They reveal that students who are enrolled in nontraditional fields are most likely to agree with these statements, 63% of males in traditionally female courses and 70% of females in traditionally male courses. The older students are, the more likely they are to perceive that employers are unwilling to hire nontraditional workers.

In line with the questions about employer willingness to hire nontraditional workers, students were asked if they think sex discrimination in the labor force is a problem. Their responses are displayed in Table E.9e. Approximately 15 percent of the students think it is not a problem. Greater percentages of male than female students feel it is not a problem, except

Table D.9a

STUDENT RESPONSE TO THE STATEMENT: EMPLOYERS ARE NOT WILLING TO HIRE MEN IN JOBS WHICH HAVE BEEN TRADITIONALLY HELD BY WOMEN

RESPONSE		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Always or Almost Always True	N	35	31	66	64	43	107	72	61	133	37	24	61	208	159	367
	%	13.0	10.1	11.5	12.8	8.5	10.6	14.8	12.2	13.5	11.4	8.1	9.8	13.2	9.9	11.5
Tends to Be True	N	117	139	256	247	234	481	230	198	428	167	131	298	761	702	1,463
	%	43.3	45.4	44.4	49.4	46.2	47.8	47.3	39.5	43.4	51.5	44.1	48.0	48.2	43.6	45.9
Tends to Be False	N	92	105	197	142	173	315	139	173	312	93	107	200	466	558	1,024
	%	34.1	34.3	34.2	28.4	34.2	31.3	28.6	34.5	31.6	28.7	36.0	32.2	29.5	34.7	32.1
Always or Almost Always False	N	26	31	57	47	56	103	45	69	114	27	35	62	145	191	336
	%	9.6	10.1	9.9	9.4	11.1	10.2	9.3	13.8	11.6	8.3	11.8	10.0	9.2	11.9	10.5

Table D.9b

STUDENT RESPONSE TO THE STATEMENT: EMPLOYERS ARE NOT WILLING TO HIRE WOMEN IN JOBS WHICH HAVE BEEN TRADITIONALLY HELD BY MEN

RESPONSE		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Always or Almost Always True	N	47	61	108	78	93	171	94	97	191	50	48	98	269	299	568
	%	17.3	19.9	18.7	15.6	18.4	17.0	19.3	19.2	19.2	15.3	16.1	15.7	17.0	18.5	17.7
Tends to Be True	N	124	155	279	253	243	496	225	230	455	175	147	322	777	775	1,552
	%	45.6	50.5	48.2	50.6	48.1	49.4	46.2	45.5	45.8	53.7	49.2	51.5	49.0	47.9	48.5
Tends to Be False	N	78	71	149	119	123	242	115	108	223	76	78	154	388	380	768
	%	28.7	23.1	25.7	23.8	24.4	24.1	23.6	21.3	22.5	23.3	26.1	24.6	24.5	23.5	24.0
Always or Almost Always False	N	23	20	43	50	46	96	53	71	124	25	26	51	151	163	314
	%	8.5	6.5	7.4	10.0	9.1	9.6	10.9	14.0	12.5	7.7	8.7	8.2	9.5	10.1	9.8

Table D.9c

STUDENT RESPONSE TO THE STATEMENT:

EMPLOYERS ARE NOT WILLING TO HIRE MEN IN JOBS WHICH HAVE BEEN TRADITIONALLY HELD BY WOMEN

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Always True	N	118	29	61	17	81	61	232	92	25	8	9	296	31	36	367
	%	12.2	14.4	14.8	6.9	10.2	10.8	10.5	13.5	15.9	17.0	10.1	11.2	12.4	12.2	11.5
Usually True	N	473	99	189	116	350	236	1098	233	74	21	34	1202	106	154	1463
	%	49.0	49.0	45.8	47.2	43.9	41.6	49.7	34.3	47.1	44.7	38.2	45.5	42.2	52.4	45.9
Usually False	N	291	48	127	83	269	206	690	249	37	13	32	851	90	83	1024
	%	30.2	23.8	30.8	33.7	33.8	36.3	31.2	36.6	23.6	27.7	36.0	32.2	35.9	28.2	32.2
Always False	N	83	26	36	30	97	64	189	106	21	5	14	291	24	21	336
	%	8.6	12.9	8.7	12.2	12.2	11.3	8.6	15.6	13.4	10.6	15.7	11.0	9.6	7.1	10.5

TOTAL N 3190
% 100.0

*Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate with .1%.

Table D.9d

STUDENT RESPONSE TO THE STATEMENT:

EMPLOYERS ARE NOT WILLING TO HIRE WOMEN IN JOBS WHICH HAVE BEEN TRADITIONALLY HELD BY MEN

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Always True	N	172	34	63	41	142	116	368	134	38	9	17	470	43	53	568
	%	17.7	16.7	15.3	16.6	17.7	20.4	16.6	19.6	24.2	19.1	19.1	17.7	17.1	17.9	17.7
Usually True	N	478	97	202	131	385	259	1142	274	73	23	38	1273	125	153	1552
	%	49.3	47.8	49.0	53.0	48.0	45.6	51.5	40.2	46.5	48.9	42.7	48.1	49.6	51.7	48.5
Usually False	N	237	48	103	52	190	138	528	176	28	9	24	636	64	66	768
	%	24.4	23.6	25.0	21.1	23.7	24.3	23.8	25.8	17.8	19.1	27.0	24.0	25.4	22.3	24.0
Always False	N	83	24	44	23	85	55	181	98	18	6	10	270	20	24	314
	%	8.6	11.8	10.7	9.3	10.6	9.7	8.2	14.4	11.5	12.8	11.2	10.2	7.9	3.1	9.8

TOTAL N 3202
% 100.0

[*] Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate within .1%.

Table D.9e

STUDENT RESPONSE TO THE QUESTION: DO YOU THINK THAT SEX DISCRIMINATION IN THE LABOR FORCE IS A PROBLEM?

RESPONSE		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
No, It Is Not A Problem	N	48	38	86	100	57	157	91	95	186	50	24	74	289	214	503
	%	17.5	12.4	14.8	20.0	11.2	15.6	18.6	18.8	18.7	15.3	8.0	11.8	18.2	13.2	15.7
I'm Not Sure	N	80	83	163	170	151	321	159	155	314	102	104	206	511	493	1,004
	%	29.2	27.1	28.1	33.9	29.7	31.8	32.4	30.6	31.5	31.3	34.7	32.9	32.1	30.4	31.3
Yes, But It's Only A Minor Problem	N	81	97	178	128	169	297	136	157	243	111	95	206	456	518	974
	%	29.6	31.7	30.7	25.5	33.3	29.4	27.8	31.0	29.4	34.0	31.7	32.9	28.7	32.0	30.3
Yes, It Is A Serious Problem	N	65	88	153	103	131	234	103	99	202	63	77	140	334	395	729
	%	42.5	57.5	26.4	20.6	25.8	23.2	21.0	19.6	20.3	19.3	25.7	22.4	21.0	24.4	22.7
No Response	N	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
	%	.0	.0	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.1	.0	.0

in the South where the percentage of females who think it is not a problem is the highest (18.8%). Slightly more than a quarter of all the students think sex discrimination in the labor force is a serious problem. In all regions but the South, more females than males feel this way. The table also shows a strong regional difference. Approximately twice as many students in the North East than in any other region feel that sex discrimination in the labor force is a serious problem.

Table D.9f provides a further breakdown of the data by student type. Students enrolled in nontraditional or mixed programs are more likely to feel sex discrimination in the labor force is a problem. They feel it is more lkely than their same sex peers enrolled in traditional programs, and than their opposite sex peers enrolled in the same type of program. Clearly more older than younger students think sex discrimination in the labor force is a problem. Table D.9g shows the responses by ethnic group and sex. There appear to be no major differences among the ethnic groups. Native American females are most likely to see sex discrimination in the labor force as a serious problem. Native American males, followed closely by Hispanic males are least likely to say it is a serious problem.

Students were subsequently asked if they think that men and women should have equal access to all occupations and if they should have equal opportunity in training for a good, well-paying job. Table D.9h shows that less than 10 percent of students feel that most occupations are clearly more suitable for one sex than the other. However, greater percentages of males than females feel this way. Less than a third of the students feel that without exception men and women should have equal access to all occupations. Greater percentages of females than males feel this way. The majority of students feel that there should be equal access for most occupations but that there are some exceptions. Table D.9i shows that the older students are the more supportive they are of equal access to all occupations. Also, nontraditional students are more supportive than students in programs traditional to their sex.

Table D.9j shows there is clear agreement with the statement that women and men should have equal opportunity in training for a good, well-

Table D.9f

STUDENT RESPONSE TO THE QUESTION:
DO YOU THINK THAT SEX DISCRIMINATION IN THE LABOR FORCE IS A PROBLEM?

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
0 No Answer	N	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1
	%	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1 No Problem	N	178	44	67	30	104	80	324	143	20	4	12	397	45	62	504
	%	18.3	21.7	16.2	12.0	13.0	14.1	14.6	20.9	12.6	8.3	13.5	14.9	17.8	21.0	15.7
2 Not Sure	N	338	60	113	72	247	174	671	220	61	21	28	893	68	42	1003
	%	34.7	29.6	27.3	28.9	30.8	30.6	30.2	32.1	38.4	43.8	31.5	33.6	26.9	14.2	31.3
3 Minor Problem	N	272	51	133	79	267	172	710	176	45	12	29	805	77	91	974
	%	27.9	25.1	32.1	31.7	33.3	30.3	31.9	25.7	28.3	25.0	32.6	30.3	30.4	30.8	30.3
4 Serious Problem		185	48	101	68	185	142	518	145	33	11	20	563	63	100	729
		19.0	23.6	24.4	27.3	23.0	25.0	23.3	21.2	20.8	22.9	22.5	21.2	24.9	33.9	22.6

TOTAL N 3211
% 100.0

*Largest row total reported. Totals vary slightly because 7 students did not indicate ethnicity and 4 did not indicate age. Percentages are accurate within .1%.

Table D.9g

IS SEX DISCRIMINATION IN THE LABOR FORCE A PROBLEM? RESPONSES OF STUDENTS BY RACE AND SEX

Response		White		Black		Hispanic		Native American		Asian	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No, it is not a problem	N	198	125	70	73	10	10	4	0	7	5
	%	17.9	11.2	21.2	20.6	14.3	11.4	14.3	0.0	14.9	11.9
I'm not sure	N	353	318	97	123	25	36	15	6	18	10
	%	31.8	28.6	29.4	34.6	35.7	40.9	53.6	30.0	38.3	23.8
Yes, but only a minor problem	N	329	381	84	92	24	20	5	7	12	17
	%	29.7	34.2	25.5	25.9	34.3	22.7	17.9	35.0	25.5	40.5
Yes, it is a serious problem	N	229	289	78	67	11	22	4	7	10	10
	%	20.6	26.0	23.6	18.9	15.7	25.0	14.3	35.0	21.3	23.8
TOTAL	N	1109	1113	330	355	70	88	28	20	47	42
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table D.9h

STUDENT RESPONSE TO THE QUESTION: DO YOU THINK THAT MEN AND WOMEN SHOULD HAVE EQUAL ACCESS TO ALL OCCUPATIONS?

RESPONSE		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
No, Most Occupations Are Clearly More Suitable for One Sex Than the Other	N	28	14	42	59	25	84	58	41	99	27	17	44	172	97	269
	%	10.2	4.6	7.2	11.8	4.9	8.3	11.9	8.1	9.9	8.3	5.7	7.0	10.8	6.0	8.4
Yes, for Most Occupations, but There Are Some Exceptions	N	161	180	341	339	322	661	301	282	583	218	167	385	1,019	951	1,970
	%	58.8	58.6	58.7	67.7	63.6	65.6	61.6	55.7	58.6	67.1	55.7	61.6	64.1	58.7	61.4
Yes, Without Exception	N	85	113	198	103	159	262	130	183	313	80	116	196	398	571	969
	%	31.0	36.8	34.1	20.6	31.4	26.0	26.6	36.2	31.5	24.6	38.7	31.4	25.0	35.3	30.2

Table D.91

STUDENT RESPONSE TO THE QUESTION:

DO YOU THINK THAT MEN AND WOMEN SHOULD HAVE EQUAL ACCESS TO ALL OCCUPATIONS?

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
No, some are for a single sex	N	117	18	37	8	60	29	150	91	16	6	4	225	22	20	269
	%	12.0	8.8	9.0	3.2	7.5	5.1	6.8	13.3	10.0	13.0	4.5	8.5	8.7	6.8	8.4
Yes; Exceptions	N	623	127	269	140	490	321	1423	367	90	24	63	1649	148	169	1970
	%	64.1	62.3	65.1	56.5	60.9	56.6	64.1	53.5	56.3	52.2	70.8	62.2	58.3	57.1	61.4
Yes; No Exceptions	N	232	59	107	100	254	217	646	228	54	16	22	779	84	107	969
	%	23.9	28.9	25.9	40.3	31.6	38.3	29.1	33.2	33.8	34.8	24.7	29.4	33.1	36.1	30.2

*Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate within .1%.

TOTAL N 3208
% 100.0

400

Table D.9j

STUDENT AGREEMENT WITH THE STATEMENT: WOMEN AND MEN SHOULD HAVE EQUAL OPPORTUNITY IN TRAINING FOR GOOD, WELL-PAYING JOBS.

RESPONSE		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Disagree Strongly	N	2	5	7	12	4	16	10	5	15	5	5	10	29	19	48
	%	0.7	1.6	1.2	2.4	0.8	1.6	2.0	1.0	1.5	1.5	1.7	1.6	1.8	1.2	1.5
Disagree Somewhat	N	11	5	16	20	11	31	22	17	39	16	3	19	69	36	105
	%	4.0	1.6	2.8	4.0	2.2	3.1	4.5	3.4	3.9	4.9	1.0	3.0	4.3	2.2	3.3
Agree Somewhat	N	65	26	91	136	52	188	91	40	131	64	34	98	356	152	508
	%	23.8	8.5	15.7	27.1	10.2	18.6	18.6	7.9	13.2	19.6	11.3	15.6	22.4	9.4	15.8
Agree Strongly	N	195	271	466	334	442	776	366	445	811	242	259	501	1,137	1,417	2,554
	%	71.4	88.3	80.3	66.5	86.8	76.8	74.8	87.8	81.4	74.0	86.0	79.8	71.5	87.3	79.4

Table D.9k

STUDENT RESPONSE TO THE STATEMENT:

WOMEN AND MEN SHOULD HAVE EQUAL OPPORTUNITY IN TRAINING FOR GOOD, WELL-PAYING JOBS

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Disagree Strongly	N	19	3	7	3	10	6	26	16	5	1	0	42	3	2	48
	%	2.0	1.5	1.7	1.2	1.2	1.1	1.2	2.3	3.1	2.2	0.0	1.6	1.2	0.7	1.5
Disagree Somewhat	N	49	6	14	4	23	9	67	25	5	1	6	94	5	3	105
	%	5.0	3.0	3.4	1.6	2.9	1.6	3.0	3.7	3.1	2.2	6.7	3.5	2.0	1.0	3.3
Agree Somewhat	N	239	35	82	20	86	46	369	82	25	14	16	445	41	22	508
	%	24.5	17.3	19.8	8.0	10.7	8.1	16.6	12.0	15.6	30.4	18.0	16.7	16.2	7.4	15.8
Agree Strongly	N	657	158	312	223	686	508	1766	561	125	30	67	2079	204	270	2554
	%	68.5	78.2	75.2	89.2	85.2	89.3	79.3	82.0	78.1	65.2	75.3	78.2	80.6	90.9	79.4

TOTAL N 3215

% 100.0

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* Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate with .1%.

paying job. Table D.9k shows that nontraditionals agree more strongly than traditionals; older students also agree more strongly, and there are no major differences by ethnicity.

Tables D.9l through D.9r report the level of agreement of students to three additional attitude statements. These three are:

- Women and men are naturally suited to different jobs.
- There is nothing wrong with encouraging women to train for traditionally male occupations.
- There is nothing wrong with encouraging men to train for traditionally female occupations.

To the first statement, approximately 60% of all students are in some form of agreement, and 40% are in disagreement. Slightly more women than men disagree (Table E.9l). Table D.9m shows that the strongest agreement comes from males in traditionally male programs, followed by males in mixed programs. Many fewer females agree with the statement and there are no differences by age. Table D.9n shows the responses by sex within ethnic group. The students who are most likely to "agree strongly" that men and women are naturally suited to different jobs are White and Black males. Those who are most likely to strongly disagree are Native American and Hispanic females.

Tables D.9o and D.9q show there is also considerable student agreement that there is nothing wrong with encouraging women and men to train for nontraditional occupations. However, the percentages of women who agree strongly with these statements are much greater than the percentage of men. This is particularly true for students enrolled in programs nontraditional for their sex (Tables D.9p and D.9r).

The correlations between student attitudes and school activity are presented in Table D.9s. The strongest significant positive correlations are found between school Title IX activities and student attitudes that there is nothing wrong with encouraging nontraditional training for either men or women, and that women and men should have equal opportunities in training for good, well-paying jobs. It is difficult to know which came

Table D.91

STUDENT AGREEMENT WITH THE STATEMENT:
WOMEN AND MEN ARE NATURALLY SUITED TO DIFFERENT JOBS.

RESPONSE		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Disagree Strongly	N	38	81	117	51	92	143	62	96	158	28	65	93	177	334	511
	%	13.1	26.5	20.2	10.2	18.1	14.2	12.7	19.0	15.9	8.6	21.7	14.9	11.2	20.6	15.9
Disagree Somewhat	N	67	87	154	101	148	249	116	115	231	92	74	166	376	424	800
	%	24.5	28.4	26.6	20.2	29.1	24.7	23.8	22.8	23.3	28.3	24.7	26.6	23.7	26.2	24.9
Agree Somewhat	N	117	105	222	220	205	425	209	200	409	150	125	275	696	635	1,331
	%	42.7	34.3	38.3	43.9	40.3	42.1	42.9	39.6	41.2	46.2	41.7	44.0	43.9	39.2	41.5
Agree Strongly	N	54	33	87	129	64	193	100	94	194	55	36	91	338	227	565
	%	19.7	10.8	15.0	25.7	12.6	19.1	20.5	18.6	19.6	16.9	12.0	14.6	21.3	14.0	17.6

Table D.9m

STUDENT RESPONSE TO THE STATEMENT: WOMEN AND MEN ARE NATURALLY SUITED TO DIFFERENT JOBS

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Disagree Strongly	N	96	30	51	71	147	116	328	121	39	13	7	422	43	43	511
	%	9.9	14.8	12.3	28.4	18.3	20.5	14.8	17.8	24.4	27.1	7.9	15.9	17.1	14.6	15.9
Disagree Somewhat	N	220	56	100	51	226	147	561	160	43	11	24	677	58	65	800
	%	22.7	27.6	24.2	20.4	28.1	25.9	25.3	23.5	26.9	22.9	27.0	25.5	23.1	22.0	25.0
Agree Somewhat	N	427	81	183	93	294	243	945	266	54	17	46	1089	110	129	1331
	%	44.0	39.9	45.5	39.2	36.6	42.9	42.5	39.1	33.8	35.4	51.7	41.0	43.8	43.7	41.5
Agree Strongly	N	228	36	74	30	136	61	387	134	24	7	12	468	40	58	565
	%	23.5	17.7	17.9	12.0	16.9	10.8	17.4	19.7	15.0	14.6	13.5	17.6	15.9	19.7	17.6

TOTAL N 3207

% 100.0

*Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age.
Percentages are accurate within .1%.

Table D.9n

WOMEN AND MEN ARE NATURALLY SUITED TO DIFFERENT JOBS
RESPONSES OF STUDENTS BY RACE AND SEX

Response		White		Black		Hispanic		Native American		Asian	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Disagree strongly	N	105	223	48	73	14	25	5	8	3	4
	%	9.5	20.0	14.7	20.6	19.7	28.4	17.9	40.0	6.4	9.5
Disagree somewhat	N	259	301	79	81	21	22	6	5	10	14
	%	23.4	27.0	24.2	22.9	29.6	25.0	21.4	25.0	21.3	33.3
Agree Somewhat	N	494	452	133	133	26	27	12	5	29	17
	%	44.6	40.6	40.7	37.6	36.6	30.7	42.9	25.0	61.7	40.5
Agree strongly	N	249	137	67	67	10	14	5	2	5	7
	%	22.5	12.3	20.5	18.9	14.1	15.9	17.9	10.0	10.6	16.7
TOTAL	N	1107	1113	327	354	71	88	28	20	47	42
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table D.9o

STUDENT AGREEMENT WITH THE STATEMENT: THERE IS NOTHING WRONG WITH ENCOURAGING WOMEN TO TRAIN FOR TRADITIONALLY MALE OCCUPATIONS.

		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Disagree Strongly	N	6	5	11	17	9	26	17	15	32	13	4	17	53	33	86
	%	2.2	1.6	1.9	3.4	1.8	2.6	3.5	3.0	3.2	4.0	1.3	2.7	3.3	2.0	2.7
Disagree Somewhat	N	28	20	48	62	27	89	51	29	80	29	14	43	170	90	260
	%	10.3	6.5	8.3	12.4	5.3	8.8	10.5	5.7	8.0	8.9	4.7	6.8	10.7	5.5	8.1
Agree Somewhat	N	109	61	170	195	129	324	173	128	301	121	69	190	598	387	985
	%	39.9	19.9	29.3	38.9	25.4	32.1	35.5	25.2	30.3	37.0	22.9	30.3	37.7	23.9	30.7
Agree Strongly	N	130	221	351	227	342	569	246	335	581	164	214	378	767	1,112	1,879
	%	47.6	72.0	60.5	45.3	67.5	56.4	50.5	66.1	58.5	50.2	71.1	60.2	48.3	68.6	58.5

4.1

4.2

Table D.9p

STUDENT RESPONSE TO THE STATEMENT:

THERE IS NOTHING WRONG WITH ENCOURAGING WOMEN TO TRAIN FOR TRADITIONALLY MALE OCCUPATIONS

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Disagree Strongly	N	30	10	13	4	18	11	54	27	2	0	2	67	9	9	86
	%	3.1	5.0	3.1	1.6	2.2	1.9	2.4	4.0	1.3	0.0	2.3	2.5	3.6	3.0	2.7
Disagree Somewhat	N	104	20	46	5	44	41	182	59	7	5	6	219	20	20	260
	%	10.7	9.9	11.1	2.0	5.5	7.2	8.2	8.6	4.4	10.6	6.8	8.2	7.9	6.7	8.1
Agree Somewhat	N	377	63	158	40	222	125	681	207	48	17	29	647	69	67	985
	%	38.8	31.2	38.2	16.0	27.6	22.0	30.6	30.3	30.0	36.2	33.0	31.9	27.3	22.6	30.7
Agree Strongly	N	461	109	197	201	519	392	1307	390	103	25	51	1522	155	201	1879
	%	47.4	54.0	47.6	80.4	64.6	68.9	58.8	57.1	64.4	53.2	58.0	57.3	61.3	67.7	58.5

TOTAL N 3210
% 100.0

*Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate within .1%.

Table D.9q

STUDENT AGREEMENT WITH THE STATEMENT: THERE IS NOTHING WRONG WITH ENCOURAGING MEN TO TRAIN FOR TRADITIONALLY FEMALE OCCUPATIONS.

RESPONSE		AREA														
		NORTH EAST			NORTH CENTRAL			SOUTH			WEST			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Disagree Strongly	N	10	10	20	31	10	41	25	18	43	19	4	23	85	42	127
	%	3.7	3.3	3.4	6.2	2.9	4.1	5.1	3.6	4.3	5.8	1.3	3.7	5.3	2.6	4.0
Disagree Somewhat	N	46	17	63	79	31	110	60	33	93	40	15	55	225	96	321
	%	16.8	5.5	10.9	15.7	6.1	10.9	12.3	6.5	9.4	12.2	5.0	8.8	14.2	5.9	10.0
Agree Somewhat	N	118	78	196	206	147	353	186	144	330	134	71	205	644	440	1,084
	%	43.2	25.4	33.8	41.0	28.9	34.9	38.2	28.5	33.2	41.0	23.7	32.7	40.5	27.1	33.8
Agree Strongly	N	99	202	301	186	321	507	216	311	527	134	210	344	635	1,044	1,679
	%	36.3	65.8	51.9	37.1	63.1	50.1	44.4	61.5	53.1	41.0	70.0	54.9	40.0	64.4	52.3

Table D.9r

STUDENT RESPONSE TO THE STATEMENT:

THERE IS NOTHING WRONG WITH ENCOURAGING MEN TO TRAIN FOR TRADITIONALLY FEMALE OCCUPATIONS

ITEM		STUDENT ENROLLMENT						ETHNICITY OF STUDENT					AGE OF STUDENT			ROW TOTAL*
		Men in Traditionally Male Area	Men in Traditionally Female Area	Men in Traditionally Mixed Area	Women in Traditionally Male Area	Women in Traditionally Female Area	Women in Traditionally Mixed Area	White	Black	His-panic	Native American	Asian	Up to 18	19-22	23 or more	
Disagree Strongly	N	49	11	25	6	23	13	81	36	6	0	3	106	12	7	127
	%	5.0	5.4	6.1	2.4	2.9	2.3	3.6	5.3	3.8	0.0	3.4	4.0	4.7	2.4	4.0
Disagree Somewhat	N	154	22	49	6	57	33	231	68	8	6	6	280	22	19	321
	%	15.8	10.8	11.9	2.4	7.1	5.8	10.4	10.0	5.0	12.8	6.7	10.5	8.7	6.4	10.0
Agree Somewhat	N	416	62	166	54	243	143	739	232	53	20	38	918	86	78	1084
	%	42.8	30.5	40.2	21.6	30.2	25.2	33.2	34.1	33.1	42.6	42.7	34.6	34.0	26.3	33.8
Agree Strongly	N	354	108	173	184	481	379	1175	345	93	21	42	1352	133	193	1679
	%	36.4	53.2	41.9	73.6	59.8	66.7	52.8	50.7	58.1	44.7	47.2	50.9	52.6	65.0	52.3

TOTAL N 3211

% 100.0

*Largest row total reported. Totals vary slightly because eight students did not indicate ethnicity and five did not indicate age. Percentages are accurate within .1%.

Table D.9s

CORRELATIONS BETWEEN STUDENT ATTITUDES TOWARD EQUITY AND SCHOOL EQUITY ACTIVITIES

SCHOOL ACTIVITY INDEX		ATTITUDE ITEM					
		Do you think sex discrimination in the labor force is a problem	Women and men are naturally suited to different jobs	Women and men should have equal opportunities in training for good, well-paying jobs	There is nothing wrong with encouraging women to train for traditionally male occupations	There is nothing wrong with encouraging men to train for traditionally female occupations	Do you think men and women should have equal access to all occupations
3-1 Internal Affirmative Action	r	.099	.152	.081	.270**	.238*	.193
	(n)	(99)	(99)	(99)	(99)	(99)	(99)
3-3 Awareness and Support Programs for Students	r	-.002	.188	.210*	.123	.179	.097
	(n)	(99)	(99)	(99)	(99)	(99)	(99)
3-4 Awareness and Support Programs for Older Women	r	-.049	-.215*	.190	.175	.246*	.046
	(n)	(90)	(90)	(90)	(90)	(90)	(90)
3-5 Instructor/Counselor Awareness Activities	r	-.031	-.148	.016	-.148	-.014	.122
	(n)	(99)	(99)	(99)	(99)	(99)	(99)
3-7 Employer/Community Liaison Activities	r	-.035	.106	.194	-.006	.064	.016
	(n)	(99)	(99)	(99)	(99)	(99)	(99)
3-8 Title IX Review Activities	r	-.065	.093	.338**	.300**	.273**	.172
	(n)	(99)	(99)	(99)	(99)	(99)	(99)
3-0 Overall School Index	r	-.025	.129	.272**	.187	.255**	.170
	(n)	(99)	(99)	(99)	(99)	(99)	(99)

*Significant at $p < .05$

**Significant at $p < .01$

first--the Title IX activity or the student attitude--but there is definitely a relationship.

To summarize, students agree that men and women should have equal opportunity in training for good, well-paying jobs and that there is nothing wrong with encouraging nontraditional enrollments, and these attitudes correlate significantly with school Title IX activities. However, in terms of the roles that men and women will fill in the labor force, the majority of students (61%) feel there should be equal access to most occupations but there are some exceptions. And 60% agree that men and women are naturally suited to different jobs. On all of these items, females and nontraditional students followed by students in mixed programs and older students also display more pro-equity attitudes. In general, older students also display more pro-equity attitudes.

Students feel that employers are generally unwilling to hire nontraditional workers, and the problem is greater for nontraditional females than for nontraditional males. However, 60% of students are either not sure if sex discrimination in the labor force is a problem, or think that it is only a minor problem. Twenty-three percent feel it is a serious problem. Those students who are most likely to perceive it as a serious problem are older students and students enrolled in nontraditional areas.

SATISFACTION WITH VOCATIONAL EDUCATION AND RELATED EQUITY EFFORTS

Student Satisfaction with Vocational Education

Five different aspects of vocational training programs were identified and students were asked to indicate how satisfied they were with each of them. The five aspects are:

- Providing information on what different jobs are like
- Providing training for a specific job
- Providing training for a number of related jobs
- Providing job placement information
- Providing training for a good, well-paying job.

Tables D.10a through D.10e present the results. On the whole students are "somewhat" to "definitely" satisfied with their vocational education programs in all these respects. This is true for each of the five types of schools in the survey as well as for the total population. There is no clear indication that either males or females are more satisfied.

Across the five types of schools, students are most satisfied with their programs for providing training for a specific job, and for providing training for good, well-paying jobs. They are satisfied, but less so, in terms of providing information on what different jobs are like, training for a number of related jobs, and job placement information. These results indicate that students are most satisfied with the actual training and less satisfied with the related functions of providing a wider range of options, skills, and placement information. This suggests that general career information in addition to specific vocational training needs to be provided.

To determine if students' satisfaction with their vocational education programs was related to the level of equity activity in a school, correlations between the school activity indexes and the mean satisfaction of all students within a school were computed. Table D.10f shows many significant positive correlations. A high level of school activity in awareness and support activities for students, employer/community liaison activities, and Title IX activities correlates significantly with every aspect of student satisfaction with their program. As might be expected, activities which are focused on staff (affirmative action and teacher awareness) do not correlate with any of the student satisfaction items. This table suggests that students are more satisfied with their vocational education in schools where there is much equity activity.

Table D.10g shows the relationship between student satisfaction with vocational programs and attitudes toward equity issues. When students agree with statements that women and men should have equal opportunity in training for good, well-paying jobs, and have equal access to all occupations, there are significant correlations with program satisfaction in terms of providing training for a specific, and a number of related, jobs. The table also shows a significant negative correlation between satisfaction

Table D.10a

STUDENT SATISFACTION WITH VOCATIONAL EDUCATION PROGRAM IN PROVIDING INFORMATION ON WHAT DIFFERENT JOBS ARE LIKE

RESPONSE		TYPE OF SCHOOL																	
		Comprehensive High School			Vocational High School			Vocational Center			Technical Institute			Junior/ Community College			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Definitely Not Satisfied	N	57	46	103	14	4	18	8	4	12	2	3	5	15	9	24	96	67	163
	%	5.8	4.3	5.0	14.9	5.6	10.8	3.1	1.6	2.4	4.9	5.5	5.2	7.5	5.4	6.5	6.1	4.2	5.1
Not Very Satisfied	N	141	137	278	9	11	20	34	20	54	3	6	9	43	20	63	230	194	424
	%	14.4	12.9	13.6	9.6	15.3	12.0	13.3	8.0	10.7	7.3	10.9	9.4	21.4	12.0	17.2	14.6	12.1	13.3
Somewhat Satisfied	N	534	593	1127	48	28	76	137	127	264	25	29	54	84	82	166	830	860	1,690
	%	55.4	55.8	55.1	51.1	38.9	45.8	53.5	50.6	52.1	61.0	52.7	56.3	41.8	49.4	45.2	52.7	53.4	53.1
Definitely Satisfied	N	250	286	536	22	29	51	76	100	176	11	17	28	59	55	114	418	487	905
	%	25.5	26.9	26.2	23.4	40.3	30.7	29.7	39.8	34.7	26.8	30.9	29.2	29.4	33.1	33.1	26.5	30.3	28.4
No Response	N	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	2	1	3
	%	.0	.0	.0	1.1	.0	.6	.4	.0	.2	.0	.0	.0	.0	.0	.0	.1	.1	.1

Table D.10b

STUDENT SATISFACTION WITH VOCATIONAL EDUCATION PROGRAM IN PROVIDING TRAINING FOR A SPECIFIC JOB

RESPONSE		TYPE OF SCHOOL																	
		Comprehensive High School			Vocational High School			Vocational Center			Technical Institute			Junior/ Community College			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Definitely Not Satisfied	N	65	66	131	5	1	6	8	12	20	1	2	3	7	4	11	87	85	172
	%	6.6	6.2	6.4	5.4	1.4	3.7	3.1	4.8	4.0	2.5	3.6	3.2	3.5	2.4	3.0	5.5	5.3	5.4
Not Very Satisfied	N	171	154	325	4	5	9	27	24	51	3	7	10	21	17	38	226	207	433
	%	17.4	14.5	15.9	4.3	7.0	5.5	10.6	9.6	10.1	7.5	12.7	10.5	10.6	10.2	10.4	14.4	12.9	13.7
Somewhat Satisfied	N	437	460	897	41	23	64	88	77	165	17	18	35	87	55	142	670	634	1,304
	%	44.5	43.4	44.0	44.6	32.4	39.3	34.6	30.7	32.7	42.5	32.7	36.8	43.7	33.1	38.9	42.7	39.5	41.1
Definitely Satisfied	N	308	379	687	41	42	83	131	138	269	19	28	47	84	90	174	584	678	1,262
	%	31.4	35.8	33.7	44.6	59.2	50.9	51.6	55.0	53.3	47.5	50.9	49.5	42.2	54.2	47.7	37.2	42.3	39.8
No Response	N	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
	%	.0	.0	.0	1.1	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0

Table D.10c

STUDENT SATISFACTION WITH VOCATIONAL EDUCATION PROGRAM IN PROVIDING TRAINING FOR A NUMBER OF RELATED JOBS

RESPONSE		TYPE OF SCHOOL																	
		Comprehensive High School			Vocational High School			Vocational Center			Technical Institute			Junior/ Community College			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Definitely Not Satisfied	N	62	76	138	7	3	10	8	10	18	1	2	3	9	8	17	87	100	187
	%	6.3	7.2	6.8	7.6	4.2	6.1	3.1	4.0	3.6	2.5	3.7	3.2	4.5	4.9	4.7	5.6	6.3	5.9
Not Very Satisfied	N	227	217	444	14	16	30	53	38	91	4	8	12	28	26	54	328	306	634
	%	23.2	20.5	21.8	15.2	22.5	18.4	20.9	15.1	18.0	10.0	14.8	12.8	14.1	15.9	14.9	21.0	19.1	20.1
Somewhat Satisfied	N	480	525	1005	44	35	79	122	116	238	22	28	50	105	68	173	773	772	1,545
	%	49.1	49.7	49.4	47.8	49.3	48.5	48.0	46.2	47.1	55.0	51.9	53.2	52.8	41.5	47.7	49.4	48.3	48.9
Definitely Satisfied	N	208	237	445	26	17	43	71	87	158	13	16	29	57	62	119	375	419	794
	%	21.3	22.4	21.9	28.3	23.9	26.4	28.0	34.7	31.3	32.5	29.6	30.9	28.6	37.8	32.8	24.0	26.2	25.1
No Response	N	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	2
	%	.0	.1	.0	1.1	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1

Table D.10d

STUDENT SATISFACTION WITH VOCATIONAL EDUCATION PROGRAM IN PROVIDING JOB PLACEMENT INFORMATION

RESPONSE		TYPE OF SCHOOL																	
		Comprehensive High School			Vocational High School			Vocational Center			Technical Institute			Junior/ Community College			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Definitely Not Satisfied	N	109	92	201	19	4	23	18	14	32	3	6	9	22	18	40	172	134	306
	%	11.1	8.7	9.9	20.7	5.7	14.2	7.1	5.6	6.3	7.5	11.3	9.7	11.6	11.5	11.5	11.0	8.4	9.7
Not Very Satisfied	N	263	216	479	17	14	31	56	43	99	7	11	18	43	23	66	386	308	694
	%	26.8	20.4	23.5	18.5	20.0	19.1	22.0	17.1	19.6	17.5	20.8	19.4	22.6	14.8	19.0	24.8	19.4	22.0
Somewhat Satisfied	N	387	456	843	30	31	61	104	112	216	17	24	41	64	65	129	603	689	1,292
	%	39.5	43.1	41.4	32.6	44.3	37.7	40.9	44.6	42.8	42.5	45.3	44.1	33.7	41.4	37.2	38.7	43.3	41.0
Definitely Satisfied	N	221	293	514	23	21	46	75	82	157	13	12	25	61	51	112	395	459	854
	%	22.6	27.7	25.2	27.2	30.0	28.4	29.5	32.7	31.1	32.5	22.6	26.9	32.1	32.5	32.3	25.4	28.8	27.1
No Response	N	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	2	1	3
	%	.0	.1	.0	1.1	.0	10	.4	.0	.2	.0	.0	.0	.0	.0	.0	.1	.1	.1

Table D.10e

STUDENT SATISFACTION WITH VOCATIONAL EDUCATION PROGRAM IN PROVIDING TRAINING FOR A GOOD, WELL-PAYING JOB

RESPONSE		TYPE OF SCHOOL																	
		Comprehensive High School			Vocational High School			Vocational Center			Technical Institute			Junior/ Community College			TOTAL		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Definitely Not Satisfied	N	88	85	173	7	4	11	5	14	19	0	6	6	11	5	16	112	114	226
	%	9.0	8.0	8.5	7.6	5.6	6.7	2.0	5.6	3.8	.0	10.9	6.3	5.5	3.1	4.4	7.1	7.1	7.1
Not Very Satisfied	N	157	181	338	6	5	11	23	28	51	6	4	10	23	13	36	215	233	448
	%	16.0	17.1	16.6	6.5	6.9	6.7	9.0	11.2	10.1	14.6	7.3	10.4	11.5	8.0	9.9	13.7	14.6	14.1
Somewhat Satisfied	N	361	390	751	30	13	43	66	72	138	14	21	35	90	72	162	561	568	1,129
	%	36.8	36.9	36.8	32.6	18.1	26.2	25.9	28.7	27.3	34.1	38.2	36.5	45.0	44.4	44.8	35.7	35.5	35.6
Definitely Satisfied	N	375	401	776	48	50	98	161	137	298	21	24	45	76	72	148	682	684	1,366
	%	38.2	37.9	38.1	52.2	69.4	59.8	63.1	54.6	58.9	51.2	43.6	46.9	38.0	44.4	40.9	43.4	42.8	43.1
No Response	N	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
	%	.0	.1	.0	1.1	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1

Table D.10f

CORRELATION BETWEEN STUDENT SATISFACTION WITH THEIR VOCATIONAL PROGRAM AND EQUITY ACTIVITIES AT THE SCHOOL

SCHOOL ACTIVITY INDEX		STUDENT SATISFACTION WITH THEIR VOCATIONAL PROGRAM IN TERMS OF:				
		Providing information on what different jobs are like	Providing training for a specific job	Providing training for a number of related jobs	Providing job placement information	Providing training for a good, well-paying job
3-1 Internal Affirmative Action	r (n)	-.112 (99)	.076 (99)	.155 (99)	-.013 (99)	.047 (99)
3-3 Awareness and Support Programs for Students	r (n)	.268** (99)	.344** (99)	.286** (99)	.350** (99)	.412** (99)
3-4 Awareness and Support Programs for Older Women	r (n)	.007 (90)	.263* (90)	.290** (90)	.020 (90)	.157 (90)
3-5 Instructor/Counselor Awareness Activities	r (n)	.152 (99)	.087 (99)	.044 (99)	.081 (99)	.039 (99)
3-7 Employer/Community Liaison Activities	r (n)	.204* (99)	.228* (99)	.206* (99)	.241* (99)	.328** (99)
3-8 Title IX Review Activities	r (n)	.203* (99)	.277** (99)	.273** (99)	.229* (99)	.255** (99)
3-0 Overall School Index	r (n)	.191 (99)	.335** (99)	.327** (99)	.245** (99)	.329** (99)

*Significant at $p < .05$

**Significant at $p < .01$

Table D.10g

CORRELATIONS BETWEEN STUDENTS' SATISFACTION WITH THEIR VOCATIONAL PROGRAMS AND EQUITY ATTITUDES

N = 99

EQUITY ATTITUDES	STUDENT SATISFACTION WITH THEIR VOCATIONAL PROGRAM IN TERMS OF:				
	Providing information on what different jobs are like	Providing training for a specific job	Providing training for a number of related jobs	Providing job placement information	Providing training for a good, well-paying job
Do you think sex discrimination in the labor force is a problem	-.094	-.152	-.134	-.091	-.277**
Women and men are naturally suited to different jobs	-.128	-.172	-.164	-.108	-.141
Women and men should have equal opportunity in training for good, well-paying jobs	.106	.292**	.241*	.177	.086
There is nothing wrong with encouraging women to train for traditionally male occupations	-.136	-.018	.067	-.087	-.074
There is nothing wrong with encouraging men to train for traditionally female occupations	.035	.150	.195	.053	.018
Do you think that men and women should have equal access to all occupations	.101	.207*	.271**	.069	.157

*Significant at $p < .05$

**Significant at $p < .01$

that they are receiving training for a good, well-paying job and perceptions of whether sex discrimination in the labor force is a problem. In other words they are more satisfied when they perceive little discrimination in the labor force. In general, while student satisfaction with vocational education does correlate with high levels of school equity activity, it correlates less so with student positive attitudes toward equity.

Staff Satisfaction with Equity Efforts

At the state level all personnel other than the State Director and the Sex Equity Coordinator were asked how satisfied they were with activities being carried out in response to the vocational education legislation. The responses of these personnel by USOE region and census bureau area are presented in Table D.11a. Overall, they are "somewhat satisfied." Individuals are least satisfied in USOE Region VI. The level of satisfaction was correlated with the level of equity related activities in a state to see whether the two are related. Satisfaction of SEA personnel with activities being carried out in response to the legislation is not significantly related to the level of overall activity in a state (r = .077).

Some data were reported in Chapter II.A, Efforts to Reduce Inequities at the State Level, which give some indications of state level personnel attitudes toward the new legislation, and the Sex Equity Coordinator in particular. The fact that 18 of the coordinators report directly to the State Director, and another 6 report to the Assistant State Director speaks well for the position within the state heirarchy of these 24 individuals, however, more than half of the Coordinators (n=26) appear to have less of an authoritive position.

Another item discussed in Chapter II.A which gives an indication of satisfaction with equity efforts was the item which asked state personnel "What are the most important functions of the sex equity coordinator in working with you to further sex equity?" Fourteen and a half percent mentioned no function at all, while only .5 percent said the coordinator was "getting in the way." All others mentioned functions relating to providing information, assistance, or reviews. Thus only 15 percent did not mention a function of the coordinator. Finally, sex equity coordinators themselves

Table D.11a

MEAN SATISFACTION[*] WITH SEX EQUITY ACTIVITIES

(Asked of state level personnel other than Sex Equity Coordinator and State Director)

Region	N	$\overline{X}$	SD
USOE: I & II	45	3.96	1.15
III	35	4.29	1.05
IV	46	4.33	.87
V	24	4.00	1.06
VI	29	3.66	1.34
VII	21	4.19	1.08
VIII	26	4.23	1.21
IX	26	3.73	1.37
X	23	4.13	1.13
Census: North East	51	3.82	1.21
North Central	55	4.11	1.08
South	100	4.20	1.05
West	69	4.03	1.20
TOTAL	275	4.07	1.13

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[*] Scale:

1. Very Dissatisfied
2. Somewhat Dissatisfied
3. Indifferent
4. Somewhat Satisfied
5. Very Satisfied

Table D.11b

MEAN SATISFACTION* WITH TITLE IX ACTIVITIES
(Asked of Sex Equity Coordinators)

Region	N	$\overline{X}$	SD
USOE: I & II	8	3.13	1.36
III	6	3.83	.75
IV	8	2.75	1.39
V	6	2.83	1.17
VI	5	3.60	1.52
VII	3	3.33	1.16
VIII	5	3.20	1.64
IX	4	2.75	.96
X	4	4.00	.82
Census: North East	9	3.22	1.30
North Central	11	2.82	1.08
South	17	3.35	1.32
West	12	3.41	1.24
TOTAL	49	3.23	1.23

* Scale:

1. Very Dissatisfied
2. Somewhat Dissatisfied
3. Indifferent
4. Somewhat Satisfied
5. Very Satisfied

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Table D.11c

MEAN SATISFACTION* WITH TITLE IX ACTIVITIES

(Asked of LEA Directors)

Census Area	N	$\overline{X}$	SD
North East	17	4.12	1.22
North Central	24	4.54	.66
South	29	4.04	1.09
West	18	3.67	1.37
TOTAL	88	4.11	1.11

* Scale:

1. Very Dissatisfied
2. Somewhat Dissatisfied
3. Indifferent
4. Somewhat Satisfied
5. Very Satisfied

Table D.11d

VOCATIONAL TEACHER SATISFACTION*
WITH SEX EQUITY ACTIVITIES IN THEIR SCHOOLS

Teachers in:		N	$\bar{X}$	SD
Area:	North East	146	3.54	1.13
	North Central	197	3.92	1.23
	South	231	3.92	1.22
	West	143	3.92	1.17
	TOTAL	717	3.84	1.20
Type of School:	Voc. High School	44	3.75	1.28
	Comp. High School	430	3.79	1.21
	Technical Institute	24	3.54	1.35
	Jr. Comm. College	92	3.79	1.25
	Voc. Center	120	4.13	1.00
	TOTAL	710	3.84	1.20

*Scale:

1. Very Dissatisfied
2. Somewhat Dissatisfied
3. Indifferent
4. Somewhat Satisfied
5. Very Satisfied

Table D.11e

VOCATIONAL SCHOOL COUNSELOR SATISFACTION* WITH SEX EQUITY ACTIVITIES IN VOCATIONAL SCHOOLS

Counselors in:		N	$\bar{X}$	SD
Area:	North East	38	3.92	1.05
	North Central	40	3.90	1.19
	South	44	4.05	1.11
	West	46	3.44	1.33
Type of School:	Voc. High School	8	4.00	1.31
	Comp. High School	114	3.84	1.18
	Technical Institute	4	3.00	1.41
	Jr. Comm. College	26	3.85	1.56
	Voc. Center	14	3.79	1.42
	Jr. High School	2	3.00	0.00
TOTAL		168	3.82	1.20

*Scale:

1. Very Dissatisfied
2. Somewhat Dissatisfied
3. Indifferent
4. Somewhat Satisfied
5. Very Satisfied

Table D.11f

VOCATIONAL SCHOOL COUNSELOR SATISFACTION* WITH SEX EQUITY ACTIVITIES IN FEEDER SCHOOLS

Counselors in:		N	$\bar{X}$	SD
Area:	North East	27	3.22	1.16
	North Central	35	3.51	1.10
	South	39	3.59	1.16
	West	31	3.32	1.94
Type of School:	Voc. High School	9	3.78	1.39
	Comp. High School	91	3.54	1.00
	Technical Institute	4	2.75	.96
	Jr. Comm. College	14	3.21	1.42
	Voc. Center	13	2.92	1.55
	Jr. High School	1	3.00	0.00
TOTAL		132	3.43	1.15

*Scale:

1. Very Dissatisfied
2. Somewhat Dissatisfied
3. Indifferent
4. Somewhat Satisfied
5. Very Satisfied

4.1

were asked what factors had inhibited them in discharging their responsibilities. Ten percent cited lack of cooperation from staff and 8% each mentioned lack of power and ill-defined responsibilities.

The Sex Equity Coordinators and LEA directors were also asked how satisfied they are with Title IX activities. Tables D.11b and D.11c present the results. In general the equity coordinators are "indifferent" to "somewhat satisfied." LEA directors' scores are closer to being "somewhat satisfied."

Tables D11.d, e, and f present the mean satisfaction scores of counselors and teachers with respect to sex equity activities. When the nation as a whole is considered, teachers and counselors show virtually the same degree of satisfaction with activities in their schools. There is virtually no correlation between satisfaction of instructors and counselors within schools (r=.001).

The mean satisfaction of counselors and instructors within a school was also correlated with the school's activity indexes. Instructor satisfaction is significantly correlated with only one activity index--Title IX review activities ($r=.335$, $p<.05$). This means the higher the level of Title IX activity, the more teacher satisfaction with equity activities in a school.

Counselor satisfaction with equity efforts in their own schools is also significantly correlated with one activity index. However, the correlation is negative. The negative correlation is with school staff awareness activities ($r=-.231$, $p<.05$). This suggests that the more school staff have participated in awareness activities, the less satisfied with equity efforts the counselors are.

The staff awareness indexes are built from items which ask if personnel have attended programs, workshops, or other activities designed to make staff aware of sex discrimination in the labor force or to alert staff to sex equity educational materials. The more staff who have attended, the higher the index. Thus it is possible that in a school where many counselors have attended such sessions (producing a high activity index) there is also heightened awareness of the problems and consequently less satisfaction with equity efforts.

In summary, students are generally satisfied with their vocational training programs, but more in terms of the specific training they receive than in terms of information on different jobs, training for related jobs, or placement assistance. Student satisfaction with their programs is highly correlated with school equity activities. Staff are generally "somewhat satisfied" with equity efforts, with school staff being slightly less satisfied than state personnel. On balance' staff satisfaction with equity efforts does not correlate consistently with level of equity activity. This means that some staff are satisfied and others dissatisfied with high levels of equity activity.

Additional Comments Made by Respondents

At the conclusion of each interview, respondents were asked if they had any additional comments they would like to make. These comments were then coded by hand as relating to one or more of five comment categories. The five are:

(1) Vocational education can or should work to encourage sex equity.

(2) Vocational education is limited in what it can do because of factors beyond its control.

(3) Sex equity should not be pushed. It will take time.

(4) Sex equity is not important in vocational education; the issue is blown out of proportion.

(5) Other

Tables D.12a, b, and c present the number and percent of respondents making each comment. State Directors and Sex Equity Coordinators are the most likely of state level staff to comment that vocational education can and should address the problem (25% and 29%, respectively). Very few negative additional comments were made. Approximately equal percentages of school level respondents made each comment. Table E.12c presents the same infor-

Table D.12a

NUMBER AND PERCENT OF STATE- AND LOCAL-LEVEL RESPONDENTS MAKING VARIOUS ADDITONAL COMMENTS

RESPONDENT	TOTAL	Comment #1 Voc. ed. can and should do something		Comment #2 Factors outside voc. ed. are biggest problem		Comment #3 Don't push Take time		Comment #4 Issue blown out of proportion		Comment #5 Other	
	N	N	%*	N	%*	N	%*	N	%*	N	%*
SEA LEVEL:											
State Director	50	25	50.0	14	28.0	15	30.0	2	4.0	3	6.0
Executive Dir., State Advisory Council	50	20	40.0	6	12.0	3	6.0	1	2.0	4	8.0
Sex Equity Coordinator	50	29	58.0	7	14.0	3	6.0	0	0	1	2.0
Professional Development	43	10	23.3	6	14.0	3	7.0	3	7.0	7	16.3
Research	51	19	37.3	10	19.6	8	15.7	2	3.9	6	11.8
Health	19	5	26.3	6	31.6	1	5.3	0	0	2	10.5
Home Economics	24	10	41.7	4	16.7	2	8.3	0	0	3	12.5
Business	25	10	40.0	2	8.0	3	12.0	0	0	1	4.0
Distributive Education	18	6	33.3	3	16.7	6	33.3	1	5.6	0	0
Technical	9	1	11.1	1	11.1	0	0	1	11.1	2	22.2
Trade and Industry	30	12	40.0	5	16.7	4	13.3	0	0	2	6.7
Agriculture	22	11	50.0	5	22.7	3	13.6	0	0	2	9.1
Combined	3	0	0	1	33.3	0	0	0	0	0	0
Counseling and Guidance	45	20	44.4	7	15.8	3	6.7	2	4.4	4	8.9
Other State Personnel	4	3	75.0	1	25.0	0	0	0	0	0	0
LEA LEVEL:											
LEA Director	94	30	31.9	23	24.5	11	11.7	4	4.3	8	8.6
LEA Counselor	49	9	18.4	8	16.3	4	8.2	1	2	4	8.2

*Percents do not total to 100%, since multiple comments or no comment could be made.

Table D.12b

NUMBER AND PERCENT OF SCHOOL-LEVEL RESPONDENTS
MAKING VARIOUS ADDITIONAL COMMENTS

RESPONDENT	TOTAL N	Comment #1 Voc. ed. can and should do something		Comment #2 Factors outside voc. ed. are biggest problem		Comment #3 Don't push Take time		Comment #4 Issue blown out of proportion		Comment #5 Other	
		N	%*	N	%*	N	%*	N	%*	N	%*
SCHOOL LEVEL:											
School Counselor	186	41	22.0	36	19.4	13	7.0	4	2.2	15	8.1
Health Teachers	47	13	27.7	6	12.8	2	4.3	0	0	5	10.6
Home Economics Teachers	87	21	23.9	11	12.6	5	5.7	2	2.3	8	9.2
Business Teachers	174	38	21.8	32	18.4	10	5.7	5	2.9	16	9.2
Distributive Education Teachers	44	8	18.2	7	15.9	2	4.5	3	6.8	2	4.5
Technical Teachers	34	7	20.6	7	20.6	1	2.9	1	2.9	4	11.8
Trade and Industry Teachers	273	55	20.1	46	16.8	16	5.9	22	8.1	25	9.2
Agriculture Teachers	47	13	27.7	8	17.0	3	6.4	6	12.8	4	8.5
Combined/ Other	10	2	20.0	2	20.0	1	10.0	0	0	0	0

*Percents do not total 100%, since multiple comments or no comment could be made.

Table D.12c

ADDITIONAL COMMENTS MADE BY TEACHERS IN DIFFERENT SCHOOLS

TYPE OF SCHOOL	TOTAL N	Comment #1 Voc. ed. can and should do something		Comment #2 Factors outside voc. ed. are biggest problem		Comment #3 Don't push Take time		Comment #4 Issue blown out of proportion		Comment #5 Other	
		N	%*	N	%*	N	%*	N	%*	N	%*
Vocational High School	44	9	20.5	6	13.6	0	0	4	9.1	3	6.8
Comprehensive High School	429	98	22.8	74	17.2	25	5.8	29	6.8	35	8.2
Technical Institute	24	2	8.3	1	4.2	1	4.2	0	0	2	8.3
Vocational Center	119	20	16.7	19	16.0	11	9.2	6	5.0	11	9.2
Junior/ Community College	93	24	25.8	18	19.4	4	4.3	0	0	12	12.9

*Percents do not total 100%, since multiple comments or no comment could be made.

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mation for teachers from the different types of schools. No great differences emerge by type of school.

Looking at these three tables together, it can be seen that state level personnel and local directors were the most likely to make additional comments about the positive role vocational education can play in sex equity. School personnel and LEA counselors were fairly consistent in the types of additional comments they made. Agriculture teachers (12.8%) and Trade and Industry teachers (8.2%) were most likely to commented that the sex equity issue had been blown out of proportion. However the percentages of agriculture and trade and industry teachers who commented that vocational education can and should do something about inequities are approximately equal to the percentages of other teachers making this comment.

Not all respondents actually made additional comments so it is therefore difficult to draw too many conclusions from these data. However, these data tend to indicate that at least a quarter of respondents feel vocational education can and should work to foster sex equity; approximately a fifth feel vocational education is limited in what it can do because of factors outside its control. Five to ten percent of the population feels that the issue should not be pushed; it will simply take time. And an additional 5-10 percent feels that it is blown out of proportion.

SUMMARY

The following points summarize the major findings presented in the four sections of this chapter.

Perceptions Regarding Inequitable Practices

- All staff at all levels feel rules denying admission and quotas limiting admission on the basis of sex occur rarely if at all. The other inequitable practices which were inquired about appear to be somewhat more common; however, none of the inequitable practices is thought to exist commonly (at least 50% of the time). The practices which appear to occur most frequently are: counselors suggesting traditional options to students undecided as to a career, and sex being considered in determining the type of work-study, cooperative education, or job placements provided for students.

- State staff are slightly more likely than LEA and school staff to report that inequitable practices exist. Counselors think teacher reluctance to have nontraditional students in their courses is more common than teachers do, and teachers are more likely than counselors to feel that counselors engage in inequitable practices.

- Approximately 25% of all respondents feel it is justifiable to take the sex of a student into consideration when determining the type of work-study, cooperative education, or job placement that is arranged. Few individuals at any level feel there are circumstances in which the other practices are justifiable.

- There are positive correlations between perceived existence of inequitable practices and equity activity, and there are negative correlations between justifiability and activity. Thus the data indicate that when individuals perceive inequitable practices to be common and when they feel these practices are not justifiable there is more activity.

- There is general agreement from a quarter to a third of the respondents at all levels that rules denying admission to courses on the basis of sex, unwritten understandings that some courses are for males and others for females, and teacher reluctance to have nontraditional students in their courses have all changed for the better in the past five years. Unwritten understandings and teacher reluctance to have nontraditional students in their courses are generally felt to be most in need of change.

- Representatives of outside organizations and agencies are critical of vocational education's efforts to address inequities. Impediments to change within vocational education are thought to be the domination of male instructors and administrators, and stereotyped materials. In general, the representatives of outside organizations feel there must be stronger enforcement of the legislation pertaining to sex equity.

Perceptions Regarding Nontraditional Students

- The general view of counselors and instructors is that nontraditional students are quite well accepted. School staff tend to think that nontraditional females are accepted slightly better than nontraditional males, and that the nontraditional male is more likely to be poorly accepted. However, school counselors feel that nontraditional females drop out more than do nontraditional males.

- More than half of all students feel that males and females prefer to be enrolled in same-sex classes. However the students who are most likely to feel this way are students who are enrolled in programs traditional for their sex. Nontraditional and older students are more likely to disagree. Students report no difference in attrition rates of nontraditional males and females.

Perceptions of Male and Female Options and Roles in the Labor Force

- Teachers and counselors feel that only half of all employers are willing to hire nontraditional students. Correlations with school equity activity show there to be more activity when instructors perceive greater willingness on the part of employers to hire nontraditional students. Both teachers and counselors feel the direction of bias in the labor force is in favor of males.

- Students generally feel that employers are unwilling to hire nontraditional workers and that the problem is greater for nontraditional females than nontraditional males. However, 60% of students are either not sure if sex discrimination in the labor force is a problem, or think it is only a minor problem.

- Students strongly agree that men and women should have equal opportunity in training for good, well-paying jobs and that there is nothing wrong with encouraging nontraditional enrollments. These attitudes are significantly positively correlated with Title IX activities at the school.

- Sixty-one percent of students feel there should be equal access to most occupations but there are some exceptions, and 60% agree that men and women are naturally suited to different jobs.

- The age of a student makes a considerable difference in his or her attitude to the above issues. Postsecondary level students display more pro-equity attitudes than do secondary level students, and students aged 22 and older are the most likely to display pro-equity attitudes. Older students are also much more likely to perceive that sex discrimination in the labor force is a problem.

- Nontraditional students display more pro-equity attitudes than do students enrolled in programs traditional for their sex. Females display more pro-equity attitudes than males. There appears to be no major differences in attitudes displayed by members of different ethnic groups.

Satisfaction with Vocational Education and Related Equity Efforts

- On the whole students are "somewhat" to "definitely" satisfied with their vocational education programs. They tend to be more satisfied with the actual training aspects of their programs than with the related functions of providing a wider range of options, skills, and placement information.

- There are significant positive correlations between school equity activity and student satisfaction with their programs--students are more satisfied when there is much equity activity. Student satisfaction with their vocational training programs is not correlated with student attitudes toward equity.

- Overall, vocational educators are "somewhat satisfied" with activities carried out in response to the vocational education legislation. In general staff satisfaction is not correlated with level of equity activity.

- Approximately 25% of all vocational educators commented that vocational education can and should work to foster sex equity. Approximately 20% commented that vocational education is limited in what it can do because of factors outside its control. Five to ten percent of the population feel equity should not be pushed in vocational education; it will simply take time. And an additional 5% to 10% feel that sex equity is not important in vocational education.

II.E PERCEPTIONS OF EFFECTIVE TECHNIQUES FOR ACHIEVING EQUITY IN VOCATIONAL EDUCATION

Previous chapters have discussed the level of implementation of activities designed to reduce inequities in vocational education. This chapter will report the assessment of the state level personnel as to which of these activities are most and least effective in overcoming sex inequities. The legislation specifies many areas of activity and the results presented in this chapter will give an indication of which of them are perceived to have the largest payoff.

This chapter will also present the results of an open-ended question posed to respondents asking for their ideas of what effective techniques to achieve sex equity might be. Similarly, instructors and counselors were asked if and how staff training or available resources could be improved to help them carry out equity efforts more effectively. Finally, this chapter briefly describes the results of the nationwide search for examples of successful programs.

PERCEPTIONS OF EFFECTIVE TECHNIQUES

The responses of state staff regarding most and least effective activities are reported in Table E.1. The table lists the mean proportion of staff at the state level who felt each activity was among the most and least effective. (More than one activity could be cited in each category.) The results show that activities to encourage nontraditional student enrollments and to make students aware of inequities were felt to be most effective by the greatest number of state staff. Disseminating information on programs designed to reduce inequities and sponsoring job placement programs for nontraditional students receive the next highest ratings. Of all the activities listed, these are the most student- and action-oriented. Three of the top four activities have to do with sponsoring programs for students, the fourth activity is designed to provide staff with concrete examples of what might be done to reduce inequities. All other activities primarily involve review and monitoring and the state level staff have indicated they feel these are less effective in terms of overcoming inequities. However, in Chapter II.A on state level efforts to reduce inequities, state staff

Table E.1

PERCEPTIONS OF MOST AND LEAST EFFECTIVE ACTIVITIES

TYPES OF ACTIVITIES	Mean proportion[*] of all state[**] respondents indicating each activity is most effective in overcoming inequities			Mean proportion[*] of all state[**] respondents indicating each activity is least effective in overcoming inequities		
	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N
Sponsor activities to encourage students toward nontraditional enrollment	.55	.50	343	.06	.23	342
Sponsor activities to make students aware of inequities	.47	.50	342	.13	.34	343
Disseminate information on programs to reduce inequities	.43	.50	343	.09	.29	343
Sponsor job placement programs for nontraditional students	.32	.47	342	.11	.32	343
Review vocational education programs in state for sex bias	.30	.46	343	.07	.26	343
Disseminate data on status of males and females in vocational programs	.26	.44	343	.16	.36	343
Review funding to assure sex equity guidelines followed	.24	.43	343	.13	.34	343
Review local curriculum materials for equity	.23	.42	343	.15	.36	343
Review LEA proposals to assure women's needs are addressed	.22	.42	343	.12	.32	343
Review state grants to assure women's needs are addressed	.20	.40	343	.13	.34	343
Monitor laws prohibiting sex discrimination in employment procedures	.18	.38	343	.23	.42	343
Encourage female representation on advisory councils	.12	.32	343	.40	.49	342
Encourage male representation on advisory councils	.06	.25	342	.63	.48	343

[*] Totals are greater than 100 since more than one activity could be named.

[**] Does not include State Director.

indicated higher levels of implementation on review and monitoring activities than on activities designed for students.

The right-hand column of Table E.1 indicates which of the listed approaches are perceived to be least productive by state personnel. Encouraging male and female representation on all advisory councils is perceived by the greatest number of individuals to be least effective. In the state level chapter, state personnel reported a higher level of implementation on these two activities than on the student-oriented activities they feel are more useful. Thus, again there appears to be an inconsistency in terms of where states are placing their efforts and the activities which are felt to be most productive.

Responses to the open-ended question regarding effective techniques for achieving equity in vocational education fell into five categories, with a sixth category for "other." Respondents' comments were coded into as many categories as applied. The five effective technique categories are:

- Provide nontraditional role models for students
- Provide inservice awareness and assistance for staff
- Provide awareness and exploration for students in the early grades
- Engage in employer and community outreach activities
- Nothing can be done; it is an impossible task.

The responses of state personnel, LEA staff, and school counselors are presented in Table E.2. The table shows that overall no single category of effective technique is perceived to be much more effective than any other, and the large numbers of individuals who mentioned techniques in addition to the five specified categories indicates the diversity of opinions on the subject. However, there are some differences in the techniques which are felt to be most effective by different types of vocational education personnel.

Sex Equity Coordinators feel quite strongly that providing inservice and technical assistance for staff will contribute to the achievement of

Table E.2

NUMBER AND PERCENT* OF SEA, LEA, AND SCHOOL COUNSELOR RESPONSES TO EFFECTIVE TECHNIQUES FOR ACHIEVING SEX EQUITY

RESPONDENTS	Providing Nontraditional Role Models		Inservice (Technical Assistance with Staff)		Awareness and Exploration in Early Grades		Employer and Community Outreach		Cannot Be Done/ Impossible Task		Other	
	N	%	N	%	N	%	N	%	N	%	N	%
SEA Level:												
Sex Equity Coordinators (N = 50)	8	16.0	19	38.0	3	6.0	10	20.0	0	0.0	48	96.0
Professional Development (N = 44)	3	6.8	7	15.9	2	4.5	10	22.7	1	2.3	37	84.1
Research Coordinators (N = 51)	5	9.8	11	21.6	6	11.8	15	29.4	1	2.0	38	74.5
Advisory Council (N = 50)	8	16.0	12	24.0	6	12.0	11	22.0	2	4.0	43	86.0
Health Occupations (N = 50)	1	5.3	1	5.3	4	21.1	2	10.5	2	10.5	14	73.7
Home Economics (N = 24)	2	8.3	4	16.7	5	20.8	3	12.5	0	0.0	21	87.5
Business Occupations (N = 25)	3	12.0	7	28.0	1	4.0	4	16.0	0	0.0	20	80.0
Distributive Education (N = 18)	0	0.0	4	22.2	3	16.7	2	11.1	1	5.6	13	72.2
Technical Occupations (N = 9)	2	22.2	1	11.1	1	11.1	2	22.2	1	11.1	7	77.8
Trade and Industrial (N = 29)	6	20.7	4	13.8	5	17.2	6	20.7	1	3.4	21	72.4
Agriculture (N = 22)	4	18.2	2	9.1	1	4.5	4	18.2	2	9.1	19	86.4
Combined Occupations (N = 3)	1	33.3	0	0.0	1	33.3	0	0.0	0	0.0	3	100.0
Counseling and Guidance (N = 45)	8	17.8	19	42.2	5	11.1	14	31.1	2	4.4	36	80.0
Other (N = 4)	1	25.0	1	25.0	0	0.0	0	0.0	0	0.0	3	75.0
LEA Level:												
LEA Director (N = 94)	9	9.6	14	14.9	10	10.6	21	22.3	8	8.5	66	70.2
LEA Counselor (N = 49)	13	26.5	8	16.3	4	8.2	5	10.2	1	2.0	37	75.5
School Level:												
Counselors (N = 188)	24	12.8	30	16.0	21	11.2	36	19.1	10	5.3	137	72.9

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*Percents do not total 100 since more than one comment could be made.

sex equity. Secondly, they feel that employer and community outreach strategies would be effective. These are the first and second choices (although sometimes in reverse order) of all state level staff who have overall program responsibility, rather than responsibility for a specific occupational program area. That is, inservice and community outreach activities are felt to be most effective by Directors of Professional Development, Research Coordinators, Executive Directors of State Advisory Councils, and Directors of Guidance and Counseling, in addition to the Sex Equity Coordinators.

This pattern is not repeated when the responses of the state level occupational program specialists are observed. Program specialists for the traditionally male areas of technical, trade and industry, and agriculture feel that providing nontraditional role models, and community and employer outreach activities are most effective, while program specialists for the traditionally female programs of health and home economics feel that providing awareness and exploration in the early grades is the most effective technique. Business and distributive education specialists are more likely to mention inservice activities for staff.

At the LEA level both the local directors and directors of counseling and guidance give inservice the second highest rating; but the directors feel that employer and community outreach activities are most effective, while the LEA counselors feel providing role models is most effective. School counselors mention employer and community outreach activities followed by inservice for staff.

Table E.3 provides the same information for the different types of instructors. Instructors tend to feel that providing nontraditional role models and awareness and exploration activities in the early grades are the most effective of the techniques. Providing nontraditional role models is mentioned by the greatest percentage of health, home economics, business, distributive education, and agriculture teachers.

Few state level respondents displayed negative attitudes by saying there were no effective techniques to achieving sex equity. Approximately

Table E.3

TEACHERS RESPONSES TO QUESTION:
WHAT DO YOU FEEL WOULD BE EFFECTIVE TECHNIQUES FOR ACHIEVING SEX EQUITY? *

		Health Occupations (N = 28)	Home Economics (N = 66)	Business Occupations (N = 124)	Distributive Education (N = 26)	Technical Occupations (N = 20)	Trade and Industrial (N = 180)	Agriculture (N = 43)	Combined/ Other (N = 9)	TOTALS, All Teachers Combined (N=495)
Providing Nontraditional Role Models	N	5	7	18	5	0	8	5	1	49
	%	17.9	10.6	14.5	19.2	0	4.5	11.4	11.0	9.9
Inservice (Technical Assistance with Staff	N	1	5	10	2	0	6	4	1	29
	%	3.6	7.6	8.1	7.7	0	3.3	9.3	11.0	5.9
Awareness and Exploration in Early Grades	N	3	7	12	1	1	20	4	1	49
	%	10.7	10.6	9.7	3.8	5.0	11.1	9.3	11.0	9.9
Employer and Community Outreach	N	2	5	12	5	1	12	5	2	44
	%	7.1	7.6	9.7	19.2	5.0	6.7	11.6	22.0	8.9
Cannot Be Done/ Impossible Task	N	4	3	10	3	6	15	3	0	44
	%	14.3	4.5	8.1	11.5	30.0	8.3	7.0	0	8.9
Other	N	17	42	79	17	14	116	21	4	310
	%	60.7	63.6	64.8	65.4	70.0	64.8	48.8	44.0	62.6

*Percents do not total 100 since more than one comment could be made.

11% of health and technical program specialists made this comment, but these percentages are based on two and one respondents respectively and cannot be given too much weight. Table E.3 shows that the percentages of teachers who made this comments are somewhat greater than other types of respondents. Overall, approximately 9% of instructors feel there are no effective techniques. The figures are highest for instructors of technical occupations (30%); health occupations (14.3%), and distributive education (11.5%).

COUNSELOR AND TEACHER NEEDS FOR MORE TRAINING OR RESOURCES IN ORDER TO ACHIEVE EQUITY IN VOCATIONAL EDUCATION

A further subject of investigation was whether teachers and counselors feel they have sufficient background and knowledge to foster sex equity, or if their task could be made easier by providing either additional training or resources. This information could be of particular interest to state staff charged with the responsibility of assisting local agency and school personnel. The responses of teachers and counselors are presented in Tables E.4, E.5, and E.6.

Table E.4 shows that approximately 27% of all teachers feel they could use additional training in the area of sex equity. Similarly, approximately 28% report they do not have adequate resources. Over 60% of all teachers feel they have adequate resources and need no additional training. There are, however, some differences in the responses of male and female instructors. Female instructors are more likely to feel that they need additional training in order to achieve sex equity. Over a third of them indicate this as opposed to a fifth of the male instructors. The differences are not as great between males and females when asked if they have adequate resources; however, again women are slightly more likely to indicate they do not have adequate resources.

With respect to school counselors, approximately 55% indicate they need more training and 40% indicate that their present resources are not adequate (Table E.5). For LEA Directors of Counseling the percentages are 58.3 and 33.3, respectively (Table E.6). Thus, counselors report a somewhat greater need for additional training and resources than do teachers. At

Table E.4

RESPONSES OF TEACHERS TO TWO ITEMS

ITEM 1: Do you feel you need more training to achieve sex equity in vocational education?

ITEM 2: Do you feel you have adequate resource materials for achieving sex equity?

		Health Occupations			Home Economics			Business			Distributive Educ.		
		Men = 2 (4.3%) Women = 45 (95.7%) Total = 47			Men = 4 (4.3%) Women = 83 (95.4%) Total = 87			Men = 53 (30.5%) Women = 121 (69.5%) Total = 174			Men = 32 (74.4%) Women = 11 (25.6%) Total = 43		
ITEM 1:		NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES
Men	N	1	0	1	2	1	1	37	4	12	27	0	5
	%	50.0	0	50.0	50.0	25.0	25.0	69.8	7.5	22.6	84.4	0	15.6
Women	N	29	3	13	38	8	37	71	8	42	6	1	4
	%	64.4	6.7	28.9	45.8	9.6	44.6	58.7	6.6	34.7	54.5	9.1	36.4
Combined	N	30	3	14	40	9	38	108	12	54	33	1	9
	%	63.8	6.4	29.8	46.0	10.3	43.7	62.1	6.9	31.0	76.7	2.3	20.9
ITEM 2:		NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES
Men	N	1	0	1	0	0	4	15	3	35	7	4	21
	%	50.0	0	50.0	0	0	100.0	28.3	5.7	66.0	21.9	12.5	65.6
Women	N	9	8	28	36	3	44	29	21	71	1	3	7
	%	20.0	17.8	62.2	43.4	3.6	53.0	24.0	17.4	58.7	9.1	27.3	63.6
Combined	N	10	8	29	36	3	48	44	24	106	8	7	28
	%	21.3	17.0	61.7	41.4	3.4	55.2	25.3	13.8	60.9	18.6	16.3	65.1

		Technical			Trade and Industry			Agriculture			Combined/Other			TOTAL		
		Men = 31 (91.2%) Women = 3 (8.8%) Total = 34			Men = 258 (94.9%) Women = 14 (5.1%) Total = 272			Men = 42 (91.3%) Women = 4 (8.7%) Total = 46			Men = 7 (70%) Women = 3 (30%) Total = 10			All Teachers (N = 713)		
ITEM 1:		NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES
Men	N	24	3	4	183	17	58	29	3	10	6	0	1	309	28	92
	%	77.4	9.7	12.9	70.9	6.6	22.5	69.0	7.1	23.8	86.0	0	14.0	72.0	6.5	21.4
Women	N	3	0	0	9	0	5	4	0	0	2	1	0	162	21	101
	%	100.0	0	0	64.3	0	35.7	100.0	0	C	67.0	33.3	0	57.0	7.4	35.6
Combined	N	27	3	4	192	17	63	33	3	10	8	1	1	471	49	193
	%	79.4	8.8	11.8	70.6	6.3	23.2	71.7	6.5	21.7	80.0	10.0	10.0	66.1	6.9	27.1
ITEM 2:		NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES	NO	NOT SURE	YES
Men	N	11	4	16	62	27	168	14	3	25	2	1	4	112	42	274
	%	35.5	12.9	51.6	24.1	10.5	65.4	33.3	7.1	59.5	29	14.0	57.0	26.1	9.8	63.9
Women	N	2	0	1	5	1	8	1	0	3	1	0	2	84	36	164
	%	66.7	0	33.3	35.7	7.1	57.1	25.0	0	75.0	33.3	0	67.0	29.6	12.7	57.7
Combined	N	13	4	17	67	28	176	15	3	28	3	1	6	196	78	438
	%	38.2	11.8	50.0	24.7	10.3	64.9	32.6	6.5	60.9	30.0	10.0	60.0	27.5	10.9	61.4

Table E.5

RESPONSES OF NON-FEEDER SCHOOL[*] COUNSELORS TO TWO ITEMS

ITEM		MALES			FEMALES			TOTAL		
		No	Not Sure	Yes	No	Not Sure	Yes	No	Not Sure	Yes
Do you feel you need more training in how to achieve sex equity in vocational education?	N	49	7	55	25	4	48	74	11	103
	%	44.1	6.3	49.5	32.5	5.2	62.3	39.4	5.9	54.8
Do you feel you have adequate resources to achieve sex equity?	N	39	15	57	35	9	33	74	24	90
	%	35.1	13.5	51.4	45.5	11.7	42.9	39.4	12.8	47.9

[*] All Schools

Males = 111 (59%)
Females = 77 (41%)
Total = 188 (100%)

Table E.6

RESPONSES OF LOCAL EDUCATION AGENCY'S DIRECTOR OF COUNSELING TO TWO ITEMS

ITEM		MALES N = 34 (70.8%)			FEMALES N = 14 (29.2%)			TOTAL N = 48 (100%)		
		No	Not Sure	Yes	No	Not Sure	Yes	No	Not Sure	Yes
Do you feel you need more training in how to achieve sex equity in vocational education?	N	12	3	19	5	0	9	17	3	28
	%	35.3	8.8	55.9	35.7	0	64.3	35.4	6.3	58.3
Do you feel you have adequate resource materials for achieving sex equity?	N	9	1	24	7	1	6	16	2	30
	%	26.5	2.9	70.6	50.0	7.1	42.9	33.3	4.2	62.5

both the LEA and school levels, female counselors are more likely than male counselors to indicate a need for additional training and resources. However, Chapter II.B and C presented data on the experience and background of male and female counselors and found them to be comparable. Therefore the differences in the felt-need for more training and resources between male and female counselors does not appear to be based on differences in background and experience.

Those individuals who indicated they could use additional training and resources were asked to indicate the kinds of each which would be most helpful. The majority of respondents were not sure what they needed and could provide no specific suggestions. Five to ten percent of the teachers said they could use training in each of the following: Characteristics of the labor force, Techniques in recruiting and placing students, Techniques in working with parents and employers, and inservice workshops in sex equity issues. Slightly greater percentages of counselors indicated a need for training in these areas. Approximately 10% to 15% of instructors and counselors mentioned they could use resources which provide more information on the problem of sex equity in vocational education, as well as more non-sexist curriculum materials for use in the classroom and during counseling. Virtually no one mentioned the need for non-sexist testing materials.

THE SEARCH FOR SUCCESSFUL PROGRAMS

A nationwide search was conducted in order to identify vocational programs that are reducing sex inequities. The search employed two baisc techniques: (1) we contacted experts in the field including our advisory panelists and surveyed the relevant literature, and (2) during the data collection phase of the study we asked many of those we interviewed if they were aware of vocational programs with a nontraditional focus. This search for successful programs did not yield an overabundance of programs. In fact, the study uncovered only 100 promising programs, 36 of which passed the following initial screening criteria:

- The program is currently in operation
- The program is targeted for secondary or postsecondary populations

- Information is available that documents the program outcomes
- The program focuses on reducing sex inequities
- The program is suitable for replication elsewhere

Twelve of these programs were described in case studies and twelve were described briefly as promising approaches. These descriptions are contained in Volume III, and summarized in the summary section of this document.

SUMMARY

The major findings in this chapter are presented below.

- State level staff feel that sponsoring or conducting programs for students--either to encourage nontraditional enrollment or make them aware of inequities--are the most effective of those activities specifically inquired about. They feel them to be more effective than review and monitoring activities, but have reported more implementation in terms of monitoring and reviewing than on student-oriented activities.
- In terms of overall effective techniques for achieving equity, state staff with general responsibility tended to mention inservice training and working with employers and the community. Occupational program specialists for traditionally male fields mentioned providing nontraditional role models and working with employers and the community, and program specialists of traditional female fields were more likely to mention providing awareness and exploration activities in the early grades. However, vocational educators appear to have done little in these areas, particularly in terms of working with employers and the community.
- School instructors tend to feel that providing nontraditional role models and awareness and exploration activities in the early grades would be the most effective general strategies.
- There appears to be more negativism at the school rather than LEA and SEA levels. Approximately 9% of all instructors feel there are no effective techniques to achieving sex equity in vocational education.
- Over 60% of all instructors feel they have adequate resources and training for achieving sex equity. However, female instructors are more likely than their male counterparts to report that they could use additional training and resources.

- Counselors report a somewhat greater need for training and resources than do instructors. Again, females report greater levels of need than males.

- There is no clear pattern to the types of additional training and resources which counselors and instructors indicated they could use.

- At present there do not appear to be many examples of successful programs designed to encourage equity in vocational programs. Twelve programs which were identified have been written up as Case Studies, and an additional twelve are described as promising approaches. These descriptions are contained in Volume III.

II.F PERCEIVED CONSTRAINTS TO ACHIEVING SEX EQUITY

Previous sections of this report undertook to describe the status of men and women in vocational education, identify inequitable practices that may exist, and determine what actions vocational educators are taking to lessen inequities. While inferences might be drawn from such data, they do not directly tap the opinions of vocational educators as to the most significant constraints to sex equity.

This section presents the opinions of state, district and school level vocational educators as to the nature of constraints to achieving sex equity in vocational education. The following topics are addressed:

- Domains in which the most serious constraints arise.
- Constraints within vocational education.
- Constraints in education other than vocational education.
- Constraints arising from employer attitudes or actions.
- Constraints resulting from community attitudes or values.

The discussion under the first topic identifies the frequency with which vocational educators feel the most important constraints to equity arise in each of four broad areas. The subsequent topics examine the nature of perceived constraints within each of these areas.

DOMAINS IN WHICH THE MOST SERIOUS CONSTRAINTS ARISE

Tables F.1 and F.2 show the frequency with which the primary constraints identified by vocational educators fall within each of four domains.* The following facts emerge from a review of these tables:

- About half of the primary constraints mentioned by interviewees fall in the 'community attitudes or values' domain; this is true, respectively, at the state, local, and school levels, as well as overall. In all of the comparisons shown on the tables, there are only two instances in which replies in another category are more frequent--female agriculture teachers, and female distributive education teachers. These results are based on four and eleven interviewees, respectively, and do not disrupt the general finding that vocational educators at all levels see community attitudes and values to be more important than any other single source of constraints.

  There are no striking differences between men and women at the state level in the frequency with which a constraint falling in the 'community attitudes or values' domain is named first. The figures for men/women are: all state level positions combined, 52.6%/49.6%; persons with overall responsibility, 53.1%/45.3%,** and occupational area specialties 51.5%/55.3%.***

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*Some notes on the method used to collect the information reported in this section may be helpful. Each interviewee was asked to say what he or she felt to be the 'biggest constraints to achieving sex equity in vocational education.' The interviewer recorded the first response, classifying it into one of four domains: constraints within vocational education, constraints outside vocational education (that is, within the educational system apart from vocational education), constraints arising from employer attitudes of actions, and constraints imposed by attitudes or mores of the community at large. The frequency with which the first constraint mentioned by interviewees fell within each of the four domains is the subject of discussion under this topic. Once the interviewee's initial response to the general query was recorded and classified, the interviewer asked the interviewee to identify constraints in each domain, in turn. Responses in each domain (including the initial responses to the general query) were subsequently grouped into four or five categories. The frequency with which respondents mentioned constraints within each of these categories are the subjects of discussion under the last four topics in this section.

**That is, those whose primary duties are not within a single program area. If Sex Equity Coordinators were not included, the figure for women would increase to 57.7%.

***That persons of the non-predominant sex are in such short supply in any given state level position makes position-by-position comparisons suspect and thus will not be undertaken here.

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Table F.1

PERCEPTIONS OF WHERE THE MOST SERIOUS CONSTRAINTS TO SEX EQUITY IN VOCATIONAL EDUCATION ARISE

State Level Respondents

			Within Vocational Education	In Education Other Than Vocational Education	Employer Attitudes or Actions	Community Attitudes or Values	None Mentioned
ALL RESPONDENT CATEGORIES COMBINED							
	Total (n = 434)	N	93	37	51	224	29
		%	21.4	8.5	11.8	51.6	6.7
	Men (n = 312)	N	57	23	44	164	24
		%	18.3	7.4	14.1	52.6	7.7
	Women (n = 122)	N	36	14	7	60	5
		%	29.8	11.6	5.8	49.6	4.1
RESPONDENTS WITH OVERALL RESPONSIBILITY							
Total Across Respondent Types	Men (n = 213)	N	36	19	28	113	17
		%	16.9	8.9	13.1	53.1	8.0
	Women (n = 75)	N	24	10	3	34	4
		%	32.0	13.3	4.0	45.3	5.3
State Directors	Men (n = 49)	N	6	2	8	28	5
		%	12.2	4.1	16.3	57.1	10.2
	Women (n = 1)	N	0	0	0	1	0
		%	0.0	0.0	0.0	100.0	0.0
Sex Equity Coordinators	Men (n = 1)	N	0	0	1	0	0
		%	0.0	0.0	100.0	0.0	0.0
	Women (n = 49)	N	18	7	2	19	3
		%	36.7	14.3	4.1	38.8	6.1
Executive Directors of State Advisory Councils	Men (n = 47)	N	9	8	2	27	1
		%	19.1	17.0	4.3	57.4	2.1
	Women (n = 3)	N	2	0	0	1	0
		%	66.7	0.0	0.0	33.3	0.0
Directors of Professional Development	Men (n = 38)	N	8	3	4	19	4
		%	21.1	7.9	10.5	50.0	10.5
	Women (n = 6)	N	0	1	0	5	0
		%	0.0	16.7	0.0	83.3	0.0
Directors of Research, Management, and Evaluation	Men (n = 44)	N	9	4	5	22	4
		%	20.5	9.1	11.4	50.0	9.1
	Women (n = 6)	N	2	1	0	2	1
		%	33.3	16.7	0.0	33.3	16.7
Directors of Guidance and Counseling	Men (n = 34)	N	4	2	8	17	3
		%	11.8	5.9	23.5	50.0	8.8
	Women (n = 10)	N	2	1	1	6	0
		%	20.0	10.0	10.0	60.0	0.0
OCCUPATIONAL AREA SPECIALISTS							
Total Across Occupational Areas	Men (n = 99)	N	21	4	16	51	7
		%	21.2	4.0	16.2	51.5	7.1
	Women (n = 47)	N	12	4	4	26	1
		%	25.5	8.5	8.5	55.3	2.1
Directors of Agricultural Occupations	Men (n = 22)	N	7	1	4	9	1
		%	31.8	4.5	18.2	40.9	4.5
Directors of Trade and Industrial Occupations	Men (n = 29)	N	2	0	5	19	3
		%	6.9	0.0	17.2	65.5	10.3
Directors of Technical Occupations	Men (n = 9)	N	0	0	1	7	1
		%	0.0	0.0	11.1	77.8	11.1
Directors of Distributive Education	Men (n = 17)	N	6	1	2	7	1
		%	35.3	5.9	11.8	41.2	5.9
	Women (n = 1)	N	1	0	0	0	0
		%	100.0	0.0	0.0	0.0	0.0
Directors of Business and Office Occupations	Men (n = 19)	N	6	2	3	7	1
		%	31.6	10.5	15.8	36.8	5.3
	Women (n = 6)	N	2	1	0	3	0
		%	33.3	16.7	0.0	50.0	0.0
Directors of Health Occupations	Men (n = 3)	N	0	0	1	2	0
		%	0.0	0.0	33.3	66.7	0.0
	Women (n = 16)	N	4	0	3	9	0
		%	25.0	0.0	18.8	56.3	0.0
Directors of Home Economics Occupations	Women (n = 24)	N	5	3	1	14	1
		%	20.8	12.5	4.2	58.3	4.2

Table F.2

PERCEPTIONS OF WHERE THE MOST SERIOUS CONSTRAINTS TO SEX EQUITY IN VOCATIONAL EDUCATION ARISE

Local and School Level Respondents

			Within Vocational Education	In Education Other Than Vocational Education	Employer Attitudes or Actions	Community Attitudes or Values	None Mentioned
DISTRICT LEVEL STAFF							
Overall for District Staff	(n = 146)	N	28	3	26	74	15
		%	19.2	2.1	17.8	50.7	10.3
Overall by Sex	Men (n = 122)	N	22	3	21	65	11
		%	18.0	2.5	17.2	53.3	9.0
	Women (n = 24)	N	6	0	5	9	4
		%	25.0	0.0	20.8	37.5	16.7
Overall by Position Local Directors of Vocational Education	(n = 95)	N	18	1	16	49	11
		%	18.9	1.1	16.8	51.6	11.6
	Men (n = 86)	N	15	1	14	46	10
		%	17.4	1.2	16.3	53.5	11.6
	Women (n = 9)	N	3	0	2	3	1
		%	33.3	0.0	22.2	33.3	11.1
Local Directors of Counseling	(n = 51)	N	10	2	10	25	4
		%	19.6	3.9	19.6	49.0	7.8
	Men (n = 36)	N	7	2	7	19	1
		%	19.4	5.6	19.4	52.8	2.8
	Women (n = 15)	N	3	0	3	6	3
		%	20.0	0.0	20.0	40.0	20.0
VOCATIONAL SCHOOL STAFF							
Overall School Total	(n = 903)	N	109	45	190	434	125
		%	12.1	5.0	21.0	48.1	13.8
Overall School Total by Sex	Men (n = 542)	N	72	35	126	239	70
		%	13.3	6.5	23.2	44.1	12.9
	Women (n = 361)	N	37	10	64	195	55
		%	10.2	2.8	17.7	54.0	15.2
Counselors	(n = 188)	N	15	6	35	111	21
		%	8.0	3.2	18.6	59.0	11.2
	Men (n = 111)	N	9	4	22	65	11
		%	8.1	3.6	19.8	58.6	9.9
	Women (n = 77)	N	6	2	13	46	10
		%	7.8	2.6	16.9	59.7	13.0
Teachers (combined across occupational areas)	(n = 715)	N	94	39	155	323	104
		%	13.1	5.5	21.7	45.2	14.5
	Men (n = 431)	N	63	31	104	174	59
		%	14.6	7.2	24.1	40.4	13.7
	Women (n = 284)	N	31	8	51	149	45
		%	10.9	2.8	18.0	52.5	15.8
Agriculture Teachers	Men (n = 43)	N	5	3	11	15	9
		%	11.6	7.0	25.6	34.9	20.9
	Women (n = 4)	N	2	0	1	1	0
		%	50.0	0.0	25.0	25.0	0.0
Trade and Industrial Teachers	Men (n = 258)	N	42	21	58	101	36
		%	16.3	8.1	22.5	39.1	14.0
	Women (n = 14)	N	2	1	2	7	2
		%	14.3	7.1	14.3	50.0	14.3
Technical Occupation Teachers	Men (n = 31)	N	0	4	7	18	2
		%	0.0	12.9	22.6	58.1	6.5
	Women (n = 3)	N	0	0	1	2	0
		%	0.0	0.0	33.3	66.7	0.0
Distributive Education Teachers	Men (n = 33)	N	6	0	9	15	3
		%	18.2	0.0	27.3	45.2	9.1
	Women (n = 11)	N	2	1	3	2	3
		%	18.2	9.1	27.3	18.2	27.3
Business and Office Teachers	Men (n = 53)	N	7	2	17	19	8
		%	13.2	3.8	32.1	35.8	15.1
	Women (n = 120)	N	13	3	29	55	20
		%	10.8	2.5	24.2	45.8	16.7
Health Occupation Teachers	Men (n = 2)	N	1	0	0	1	0
		%	50.0	0.0	0.0	50.0	0.0
	Women (n = 45)	N	3	1	5	28	8
		%	6.7	2.2	11.1	62.2	17.8
Home Economics Teachers	Men (n = 4)	N	0	1	1	2	0
		%	0.0	25.0	25.0	50.0	0.0
	Women (n = 84)	N	9	2	10	52	11
		%	10.7	2.4	11.9	61.9	13.1

Men and women at the district level differ in the frequency with which they gave first a constraint which falls in the 'community attitudes and values' category. While this response is the first choice of both men and women, greater percentages of men than women mentioned it first. The figures for men/women are: for Local Directors of Vocational Education, 53.5%/33.3%; for Local Directors of Guidance and Counseling, 52.8%/40.0%; and, combining these categories, 53.3%/37.5%.

- Close to 60% of counselors,* the highest percentage of any group thus far discussed, gave first a response that fell in the 'community attitudes or values' domain; men and women were essentially equal in this respect. Teachers differ substantially from counselors. About 45% of teachers gave a response that fell in this domain--this was still the most frequent type of response for teachers, however. Female teachers are more likely than their male counterparts to single out a constraint in this domain as their first choice--52.5% as against 40.4%.

- As one moves from the state level to the district and school levels, the percentage of staff mentioning first a constraint within vocational education decreases from 21.4% to 12.1%. At the same time, the percentage mentioning a constraint in the domain of 'employer attitudes or actions' increases from 11.8% to 21.0%.

In sum, constraints in the domain of 'community attitudes and values' are more frequently mentioned by state, district, and school staff than are constraints in any other domain. This observation holds for both men and women filling practically every position reported--the few exceptions are based on such small numbers of respondents as to be of little importance. Even though this was most commonly the first kind of constraint mentioned by both men and women, some sex differences did appear in the frequency with which this was so, the difference being most noticeable among Local Directors of Counseling; about 53% of the men and 40% of the women mention first a constraint in this domain. For state and district staff, a constraint 'within vocational education' was next most likely to be mentioned first, followed by a constraint resulting from 'employer attitudes or actions;' for school staff, this situation was reversed.

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*For purposes of this section, 'counselor' refers to a counselor at one of the schools selected in the Vocational Education Equity Study sample; the term does not include feeder school counselors.

Tables F.3 to F.6 present some of these data by Census Bureau region. The following observations emerge from a review of these tables:

- Rarely do the rank orders in which the constraint domains were named first differ by region from the overall total. Exceptions can be noted as follows: (a) North East--State Directors name constraints within vocational education before constraints resulting from employer attitudes--in all other regions, directors name constraints from employer attitudes before constraints within vocational education; (b) in the North Central region, more Sex Equity Coordinators name constraints within vocational education above all other constraint domains--this is the only instance in which this occurs.

- Sex Equity Coordinators in the South see constraints in education other than vocational education to be a bigger factor than do coordinators in the other regions.

- In every region, Sex Equity Coordinators are more likely than directors to cite constraints in vocational education; State Directors of Vocational Education are more likely to name constraints in community and employer attitudes.

- Instructors are more likely than counselors to name constraints emanating from within vocational education; counselors are more likely than instructors to cite constraints resulting from community values.

- School level respondents are more likely than respondents from other levels to name employer attitudes as a constraint.

In sum, regional data are generally in accord with national data. No consistent, striking deviations occur to make any of the regions stand out as consistently different from the others.

CONSTRAINTS WITHIN VOCATIONAL EDUCATION

Tables F.7 and F.8 show the frequency with which vocational educators in various positions mentioned each of several kinds of constraints within vocational education. The subcategories are:

- Teacher attitudes/lack of awareness
- Administration attitudes/lack of awareness
- Student attitudes/lack of awareness

Table F.3

CONSTRAINTS TO ACHIEVING SEX EQUITY IN VOCATIONAL EDUCATION AS PERCEIVED BY STATE DIRECTORS AND SEX EQUITY COORDINATORS

Type of Constraint		North East		North Central		South		West		TOTAL	
		SD*	SEC**	SD	SEC	SD	SEC	SD	SEC	SD	SEC
Constraints within Vocational Education	N	1	4	3	6	2	3	0	5	6	18
	%	12.5	44.4	30.0	50.0	12.5	17.6	0.0	41.7	13.3	36.0
Constraints outside Vocational Education, but within General Education	N	0	0	1	2	0	5	1	0	2	7
	%	0.0	0.0	10.0	16.7	0.0	29.4	9.1	0.0	4.4	14.0
Constraints resulting from employers attitudes or actions	N	0	0	3	1	3	2	2	0	8	3
	%	0.0	0.0	30.0	8.3	18.8	11.8	18.2	0.0	17.8	6.0
Constraints imposed by attitudes or values of the community at large	N	7	5	3	1	11	6	8	7	29	19
	%	87.5	55.6	30.0	8.3	68.8	35.3	72.7	58.3	64.4	38.0
No response	N	0	0	0	2	0	1	0	0	0	3
	%	0.0	0.0	0.0	16.7	0.0	5.9	0.0	0.0	0.0	6.0
Column TOTAL	N	8	9	10	12	16	17	11	12	45	50
	%	17.8	18.0	22.2	24.0	35.6	34.0	24.4	24.0	100.0	100.0

*State Director

**Sex Equity Coordinator

Table F.4

CONSTRAINTS TO ACHIEVING SEX EQUITY IN VOCATIONAL EDUCATION AS PERCEIVED BY STATE OCCUPATIONAL PROGRAM SPECIALISTS

Type of Constraint	No. & % of Responses	North East	North Central	South	West	TOTAL
Constraints within Vocational Education	N	7	5	14	7	33
	%	25.9	14.7	28.0	18.4	22.1
Constraints outside Vocational Education, but within General Education	N	1	1	3	3	8
	%	3.7	2.9	6.0	7.9	5.4
Constraints resulting from employer attitudes or actions	N	6	6	5	4	21
	%	22.2	17.6	10.0	10.5	14.1
Constraints imposed by attitudes or values of the community at large	N	13	20	25	21	79
	%	48.1	58.8	50.0	55.3	53.0
No response	N	0	2	3	3	8
	%	0.0	5.9	6.0	7.9	5.4
Column TOTAL	N	27	34	50	38	149
	%	18.1	22.8	33.6	25.5	100.0

Table F.5

CONSTRAINTS TO ACHIEVING SEX EQUITY IN VOCATIONAL EDUCATION AS PERCEIVED BY LOCAL DIRECTORS AND LOCAL DIRECTORS OF COUNSELING

Type of Constraint	No. & % of Responses	North East		North Central		South		West		TOTAL	
		Dir.	Coun.	Dir.	Coun.	Dir.	Coun.	Dir.	Coun.	Dir.	Coun.
Constraints within Vocational Education	N	5	1	3	3	4	1	7	5	19	10
	%	27.8	10.0	10.3	23.1	12.9	5.9	36.8	45.5	19.6	19.6
Constraints outside Vocational Education, but within General Education	N	0	0	0	1	1	1	0	0	1	2
	%	0.0	0.0	0.0	7.7	3.2	5.9	0.0	0.0	1.0	3.9
Constraints resulting from employer attitudes or actions	N	3	3	3	2	7	5	4	0	17	10
	%	16.7	30.0	10.3	15.4	22.6	29.4	21.1	0.0	17.5	19.6
Constraints imposed by attitudes or values of the community at large	N	7	6	19	5	15	9	8	5	49	25
	%	38.9	60.0	65.5	38.5	48.4	52.9	42.1	45.5	50.5	49.0
No response	N	3	0	4	2	4	1	0	1	11	4
	%	16.7	0.0	13.8	15.4	12.9	5.9	0.0	9.1	11.3	7.8
Column TOTAL	N	18	10	29	13	31	17	19	11	97	51
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table F.6

CONSTRAINTS TO ACHIEVING SEX EQUITY IN VOCATIONAL EDUCATION AS PERCEIVED BY INSTRUCTORS AND COUNSELORS

Type of Constraint	No. & % of Responses	North East		North Central		South		West		TOTAL	
		Inst.	Coun.	Inst.	Coun.	Inst.	Coun.	Inst.	Coun.	Inst.	Coun.
Constraints within Vocational Education	N	22	4	19	2	32	5	21	4	94	15
	%	15.1	10.0	9.6	4.3	14.0	9.6	14.6	8.0	13.1	8.0
Constraints outside Vocational Education, but within General Education	N	8	1	9	2	15	1	7	2	39	6
	%	5.5	2.5	4.6	4.3	6.6	1.9	4.9	4.0	5.4	3.2
Constraints resulting from employer attitudes or actions	N	37	8	45	7	41	13	33	7	156	35
	%	25.3	20.0	22.8	15.2	17.9	25.0	22.9	14.0	21.8	18.6
Constraints imposed by attitudes or values of the community at large	N	69	20	76	28	111	31	67	32	323	111
	%	47.3	50.0	38.6	60.9	48.5	59.6	46.5	64.0	45.1	59.0
No response	N	10	7	48	7	30	2	16	5	104	21
	%	6.8	17.5	24.4	15.2	13.1	3.8	11.1	10.0	14.5	11.2
Column TOTAL	N	146	40	197	46	229	52	144	50	716	188
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table F.7

CONSTRAINTS WITHIN VOCATIONAL EDUCATION AS SEEN BY STATE LEVEL RESPONDENTS

			Teacher Attitudes/ Lack of Awareness	Administration Attitudes/ Lack of Awareness	Student Attitudes/ Lack of Awareness	Lack of Appropriate Facilities	Other
ALL RESPONDENT CATEGORIES COMBINED							
	Total (n = 437)	N	171	134	77	15	20
		%	39.1	30.7	17.6	3.4	4.6
	Men (n = 315)	N	123	89	55	13	11
		%	39.0	28.3	17.5	4.1	3.5
	Women (n = 122)	N	48	45	22	2	9
		%	39.3	36.9	18.0	1.6	7.4
RESPONDENTS WITH OVERALL RESPONSIBILITY							
Total Across Respondent Types	(n = 290)	N	118	86	54	11	12
		%	40.7	29.7	18.6	3.8	4.1
	Men (n = 215)	N	84	61	39	9	8
		%	39.1	28.4	18.1	4.2	3.7
	Women (n = 75)	N	34	25	15	2	4
		%	45.3	33.3	20.0	2.7	5.3
State Directors	Men (n = 49)	N	19	16	14	2	0
		%	38.8	32.7	28.6	4.1	0.0
	Women (n = 1)	N	0	0	0	1	0
		%	0.0	0.0	0.0	100.0	0.0
Sex Equity Coordinators	Men (n = 1)	N	0	0	0	0	0
		%	0.0	0.0	0.0	0.0	0.0
	Women (n = 49)	N	27	20	13	0	4
		%	55.1	40.8	26.5	0.0	8.2
Executive Directors of State Advisory Councils	Men (n = 47)	N	17	10	5	4	1
		%	36.2	21.3	10.6	8.5	2.1
	Women (n = 3)	N	0	0	1	0	0
		%	0.0	0.0	33.3	0.0	0.0
Directors of Professional Development	Men (n = 38)	N	15	11	7	2	3
		%	39.5	28.9	18.4	5.3	7.9
	Women (n = 6)	N	1	1	0	0	0
		%	16.7	16.7	0.0	0.0	0.0
Directors of Research, Management, and Evaluation	Men (n = 45)	N	22	18	7	1	4
		%	48.9	40.0	15.6	2.2	8.9
	Women (n = 6)	N	2	0	1	1	0
		%	33.3	0.0	16.7	16.7	0.0
Directors of Guidance and Counseling	Men (n = 35)	N	11	6	6	0	0
		%	31.4	17.1	17.1	0.0	0.0
	Women (n = 10)	N	4	4	0	0	0
		%	40.0	40.0	0.0	0.0	0.0
OCCUPATIONAL AREA SPECIALISTS							
Total Across Occupational Areas	(n = 147)	N	53	48	23	4	8
		%	36.1	32.7	15.6	2.7	5.4
	Men (n = 100)	N	39	28	16	4	3
		%	39.0	28.0	16.0	4.0	3.0
	Women (n = 47)	N	14	20	7	0	5
		%	29.8	42.6	14.9	0.0	10.6
Directors of Agricultural Occupations	Men (n = 22)	N	11	8	6	1	1
		%	50.0	36.4	27.3	4.5	4.5
Directors of Trade and Industrial Occupations	Men (n = 30)	N	13	8	7	0	0
		%	43.3	26.7	23.3	0.0	0.0
Directors of Technical Occupations	Men (n = 9)	N	5	1	1	0	0
		%	55.6	11.1	11.1	0.0	0.0
Directors of Distributive Education	Men (n = 17)	N	5	6	2	1	1
		%	29.4	35.3	11.8	5.9	5.9
	Women (n = 1)	N	1	1	0	0	0
		%	100.0	100.0	0.0	0.0	0.0
Directors of Business and Office Occupations	Men (n = 19)	N	4	4	0	2	1
		%	21.1	21.1	0.0	10.5	5.3
	Women (n = 6)	N	3	1	2	0	0
		%	50.0	16.7	33.3	0.0	0.0
Directors of Health Occupations	Men (n = 3)	N	1	1	0	0	0
		%	33.3	33.3	0.0	0.0	0.0
	Women (n = 16)	N	1	4	2	0	2
		%	6.3	25.0	12.5	0.0	12.5
Directors of Home Economics Occupations	Women (n = 24)	N	9	14	3	0	3
		%	37.5	58.3	12.5	0.0	12.5

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Table F.8

CONSTRAINTS WITHIN VOCATIONAL EDUCATION AS SEEN BY LOCAL AND SCHOOL LEVEL RESPONDENTS

			Teacher Attitudes/ Lack of Awareness	Administration Attitudes/ Lack of Awareness	Student Attitudes/ Lack of Awareness	Lack of Appropriate Facilities	Other
DISTRICT LEVEL STAFF							
Overall for District Staff	(n = 147)	N	43	29	31	4	8
		%	29.3	19.7	21.1	2.7	5.4
Overall by Sex	Men (n = 123)	N	33	20	27	3	7
		%	26.8	16.3	22.0	2.4	5.7
	Women (n = 24)	N	10	9	4	1	1
		%	41.7	37.5	16.7	4.2	4.2
Overall by Position							
Local Directors of Vocational Education	(n = 96)	N	27	17	20	2	6
		%	28.1	17.7	20.8	2.1	6.3
	Men (n = 87)	N	25	15	19	2	6
		%	28.7	18.3	22.0	2.2	6.9
	Women (n = 9)	N	2	2	1	0	0
		%	22.2	22.2	11.1	0.0	0.0
Local Directors of Counseling	(n = 51)	N	16	12	11	2	2
		%	31.4	23.5	21.6	3.9	3.9
	Men (n = 36)	N	8	5	8	1	1
		%	22.2	13.9	22.2	2.8	2.8
	Women (n = 15)	N	8	7	3	1	1
		%	53.3	46.7	20.0	6.7	6.7
VOCATIONAL SCHOOL STAFF							
Overall School Total	(n = 905)	N	118	82	153	16	39
		%	13.0	9.1	16.9	1.8	4.3
Overall School Total by Sex	Men (n = 543)	N	71	49	77	10	29
		%	13.1	9.0	14.2	1.8	5.3
	Women (n = 362)	N	47	33	76	6	10
		%	13.0	9.1	21.0	1.7	2.8
Counselors	(n = 188)	N	33	22	37	5	3
		%	17.6	11.7	19.7	2.7	1.6
	Men (n = 111)	N	20	13	20	3	2
		%	18.0	11.8	18.0	2.7	1.8
	Women (n = 77)	N	13	9	17	2	1
		%	16.9	11.7	22.1	2.6	1.3
Teachers (combined across occupational areas)	(n = 717)	N	85	60	116	11	36
		%	11.9	8.4	16.2	1.5	5.0
	Men (n = 432)	N	51	36	57	7	27
		%	11.8	8.3	13.2	1.6	6.2
	Women (n = 285)	N	34	24	59	4	9
		%	11.9	8.5	20.7	1.4	3.2
Agriculture Teachers	Men (n = 43)	N	5	2	4	0	4
		%	11.6	4.7	9.3	0.0	9.3
	Women (n = 4)	N	0	0	2	0	0
		%	0.0	0.0	50.0	0.0	0.0
Trade and Industrial Teachers	Men (n = 259)	N	27	20	33	5	20
		%	10.4	7.7	12.7	1.9	7.8
	Women (n = 14)	N	0	3	0	0	1
		%	0.0	21.4	0.0	0.0	7.1
Technical Occupation Teachers	Men (n = 31)	N	3	3	4	1	0
		%	9.7	9.7	12.9	3.2	0.0
	Women (n = 3)	N	0	0	0	0	0
		%	0.0	0.0	0.0	0.0	0.0
Distributive Education Teachers	Men (n = 33)	N	8	3	2	1	1
		%	24.2	9.1	6.1	3.0	3.0
	Women (n = 11)	N	2	0	3	0	0
		%	18.2	0.0	27.3	0.0	0.0
Business and Office Teachers	Men (n = 53)	N	6	7	10	1	1
		%	11.3	13.2	18.9	1.9	1.9
	Women (n = 121)	N	13	11	27	0	5
		%	10.7	9.1	22.3	0.0	4.2
Health Occupation Teachers	Men (n = 2)	N	0	0	1	0	0
		%	0.0	0.0	50.0	0.0	0.0
	Women (n = 45)	N	6	5	7	0	1
		%	13.3	11.1	15.6	0.0	2.3
Home Economics Teachers	Men (n = 4)	N	0	0	1	0	0
		%	0.0	0.0	25.0	0.0	0.0
	Women (n = 84)	N	12	5	20	4	2
		%	14.3	6.0	23.8	4.8	2.4

- Lack of appropriate facilities
- Other

The following observations emerge from an examination of these tables:

- State and district level staff are more likely to mention a constraint indicating 'poor teacher attitudes or lack of awareness,' than a constraint of any other single type. For school level staff, this is the second most popular category, following 'poor student attitudes and lack of awareness.' Generally, there is a decline in the percentage of people mentioning a constraint resulting from 'teacher attitudes or lack of awareness' as one moves from the state, to the local, to the school levels--39% to 29% to 13%.

  Some deviations from the overall percentages appear in an examination of the data by sex or respondent position. Although men and women at the state level are about equally likely to name a constraint in the area of 'teacher attitudes or lack of awareness' when all positions are lumped together, male occupational area specialists are more likely to do so than are their female counterparts (39% to 29%). The same is true for persons in positions of overall responsibility when the responses of Sex Equity Coordinators are excluded--39% as against 27%. When the responses of Sex Equity Coordinators are included, the percentage for women increases to 45%.

  Local Directors of Counseling (31%) are slightly more likely than Local Directors of Vocational Education (28%) to name a constraint reflecting poor teacher attitudes or lack of awareness on the part of teachers. About 42% of the women as against 27% of the men mentioned a constraint of this type. This difference results from a 53% to 22% difference among counseling directors; among vocational directors, a greater percentage of men (29%) than women (22%) mention a constraint of this type.

  Among school level staff, men and women are equally likely to mention a constraint resulting from teacher attitudes or lack of awareness; this is true whether one examines the responses of teachers and counselors separately, or combines them. As a group, however, counselors (18%) are more likely than teachers (12%) to identify a constraint of this type.

- Among state level staff, the second most commonly mentioned kinds of constraints reflect administrator attitudes or lack of awareness. This is true for both men and women with overall responsibilities, and for both male and female occupational area specialists. The percentage of women who mentioned a constraint of this kind is greater than the percentage of men who did so--37% as against 28%, overall. Similarly, a greater percentage of female (43%) than male

(28%) occupational program specialists mentioned a constraint in this area, as did a greater percentage of women with overall responsibility--33%, as against 28% for the men. The latter figure for women drops to 19% if Sex Equity Coordinators are not included.

About 13% of state level interviewees mentioned student attitudes or lack of awareness as a constraint. Staff members with overall responsibility were slightly more likely than occupational program specialists to mention a constraint of this type (19% as against 16%). Men and women in either category were within two percentage points of each other; if Sex Equity Coordinators are excluded, however, the score for women with overall responsibility declines to 8%.

- District level staff mention constraints arising from administrator attitudes or lack of awareness about equally as often as constraints arising from student attitudes or lack of awareness--20% and 21%, respectively. Women are much more inclined to point at administrators than students, however--38% as against 17%. For men, the reverse is true, by 22% to 16%. A difference in this direction appears for men and women holding each position, as well as overall.
- School level staff are more likely to find fault with student attitudes and lack of awareness than with administrator attitudes--17% as against 9%, overall. Results in this direction are to be found for both teachers and counselors of each sex. As a group, counselors are more likely to find fault with administrators and with students than are teachers--by about 3.5% in either case. Male and female counselors are equally likely to mention shortcomings of administrators, as are male and female teachers. A slightly greater percentage of female than male counselors (22% against 18%) mentioned constraints resulting from student attitudes or lack of awareness; likewise, female teachers were more likely than their male counterparts to mention a constraint of this type--21% against 13%.

In sum, state and district level staff tend to disagree with school staff on the most important type of constraint within vocational education. State and district staff give substantially more play to teacher attitudes and lack of awareness than do individuals from schools. School staff are most likely to see the problem as one of student attitudes and lack of awareness followed closely by problems related to teachers. At the school level more counselors than teachers perceive constraints in teacher attitudes. Similarly at the LEA level more counselors than directors perceived constraints in teacher attitudes. Following constraints resulting from teacher attitudes, SEA and LEA staff find constraints in the attitudes of administrators. This does not appear to be a major concern of school level personnel. However, at the SEA and LEA levels more females than males perceive constraints resulting from the attitudes of administrators.

It should also be noted that state and district staff are generally more likely to mention constraints than are school staff. Constraints mentioned averaged .95 per staff member at the state level, against .78 and .45 per staff member at the district and school levels, respectively. Because state level staff were relatively free in mentioning constraints, their scores tend to be high in each of the categories considered separately. For example, state level staff more frequently mentioned student attitudes and lack of awareness--their third most frequent constraint category--than did school staff, for whom this was the most frequently mentioned type of constraint.

CONSTRAINTS IN EDUCATION OTHER THAN VOCATIONAL EDUCATION

Tables F.9 and F.10 show the frequency with which various kinds of constraints were mentioned by vocational educators as existing in education generally. The subcategories are:

- Counselors attitudes/lack of awareness
- Teacher attitudes/lack of awareness
- Pervasiveness of stereotyping in education generally
- Other

Note that the percentages shown in these tables are substantially smaller than those shown in Tables F.7 and F.8. This reflects the fact that in this area only .52, .29, and .20 constraints were mentioned by each state, district, or school level respondent, respectively. Each of these is substantially lower than the corresponding figure for constraints within

Table F.9

CONSTRAINTS IN EDUCATION, OTHER THAN VOCATIONAL EDUCATION, AS SEEN BY STATE LEVEL RESPONDENTS

			Counselor Attitudes/ Lack of Awareness	Teacher Attitudes/ Lack of Awareness	Pervasiveness of Stereotyping in Education Generally	Other
ALL RESPONDENT CATEGORIES COMBINED						
	Total (n = 437)	N	86	48	81	14
		%	19.7	11.0	18.5	3.2
	Men (n = 315)	N	64	41	56	9
		%	20.3	13.0	17.8	2.9
	Women (n = 122)	N	22	7	25	5
		%	18.0	7.0	20.5	4.1
RESPONDENTS WITH OVERALL RESPONSIBILITY						
Total Across Respondent Types	(n = 290)	N	55	38	60	10
		%	19.0	13.1	20.7	3.4
	Men (n = 215)	N	42	34	40	7
		%	19.5	15.8	18.6	3.3
	Women (n = 75)	N	13	4	20	3
		%	17.3	5.3	26.7	4.0
State Directors	Men (n = 49)	N	10	10	8	1
		%	20.4	20.4	16.3	2.0
	Women (n = 1)	N	0	0	1	0
		%	0.0	0.0	100.0	0.0
Sex Equity Coordinators	Men (n = 1)	N	0	0	0	0
		%	0.0	0.0	0.0	0.0
	Women (n = 49)	N	1	3	13	1
		%	22.4	6.1	26.5	2.0
Executive Directors of State Advisory Councils	Men (n = 47)	N	11	4	10	3
		%	23.4	8.5	21.3	6.4
	Women (n = 3)	N	1	0	1	0
		%	33.3	0.0	33.3	0.0
Directors of Professional Development	Men (n = 38)	N	4	4	8	2
		%	10.5	10.5	21.1	5.3
	Women (n = 6)	N	0	0	2	0
		%	0.0	0.0	33.3	0.0
Directors of Research, Management, and Evaluation	Men (n = 45)	N	10	9	9	0
		%	22.2	20.0	20.0	0.0
	Women (n = 6)	N	0	0	1	0
		%	0.0	0.0	16.7	0.0
Directors of Guidance and Counseling	Men (n = 35)	N	7	6	5	1
		%	20.0	17.1	14.3	2.9
	Women (n = 10)	N	1	1	2	2
		%	10.0	10.0	20.0	20.0
OCCUPATIONAL AREA SPECIALISTS						
Total Across Occupational Areas	(n = 147)	N	31	10	21	4
		%	21.1	6.8	14.3	2.7
	Men (n = 100)	N	22	7	16	2
		%	22.0	7.0	16.0	2.0
	Women (n = 47)	N	9	3	5	2
		%	19.1	6.4	10.6	4.3
Directors of Agricultural Occupations	Men (n = 22)	N	4	0	3	0
		%	18.2	0.0	13.6	0.0
Directors of Trade and Industrial Occupations	Men (n = 30)	N	8	3	4	0
		%	26.7	10.0	13.3	0.0
Directors of Technical Occupations	Men (n = 9)	N	2	1	4	0
		%	22.2	11.1	44.4	0.0
Directors of Distributive Education	Men (n = 17)	N	5	1	1	1
		%	29.4	5.9	5.9	5.9
	Women (n = 1)	N	0	0	0	0
		%	0.0	0.0	0.0	0.0
Directors of Business and Office Occupations	Men (n = 19)	N	3	2	4	1
		%	15.8	10.5	21.1	5.3
	Women (n = 6)	N	2	0	0	0
		%	33.3	0.0	0.0	0.0
Directors of Health Occupations	Men (n = 3)	N	0	0	0	0
		%	0.0	0.0	0.0	0.0
	Women (n = 16)	N	1	0	1	1
		%	6.3	0.0	6.3	6.3
Directors of Home Economics	Women (n = 24)	N	6	3	4	1
		%	25.0	12.5	16.7	4.2

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Table F.10

CONSTRAINTS IN EDUCATION, OTHER THAN VOCATIONAL EDUCATION, AS SEEN BY LOCAL AND SCHOOL LEVEL RESPONDENTS

			Counselor Attitudes/ Lack of Awareness	Teacher Attitudes/ Lack of Awareness	Pervasiveness of Stereotyping in Education Generally	Other
DISTRICT LEVEL STAFF						
Overall for District Staff	(n = 147)	N	21	9	12	1
		%	14.3	6.1	8.2	.7
Overall by Sex	Men (n = 123)	N	19	7	7	1
		%	15.4	5.7	5.7	.8
	Women (n = 24)	N	2	2	5	0
		%	8.3	8.3	20.8	0.0
Overall by Position						
Local Directors of Vocational Education	(n = 96)	N	15	5	5	1
		%	15.6	5.2	5.2	1.0
	Men (n = 87)	N	15	5	2	1
		%	17.2	5.7	2.3	1.1
	Women (n = 9)	N	0	0	3	0
		%	0.0	0.0	33.3	0.0
Local Directors of Counseling	(n = 51)	N	6	4	2	0
		%	11.8	7.8	3.9	0.0
	Men (n = 36)	N	4	2	5	0
		%	11.1	5.6	13.9	0.0
	Women (n = 15)	N	2	2	2	0
		%	13.3	13.3	13.3	0.0
VOCATIONAL SCHOOL STAFF						
Overall School Total	(n = 905)	N	68	26	81	5
		%	7.5	2.8	8.9	.6
Overall School Total by Sex	Men (n = 543)	N	38	17	59	3
		%	6.9	3.1	10.9	.6
	Women (n = 362)	N	30	9	22	2
		%	8.3	2.5	6.1	.6
Counselors	(n = 188)	N	8	10	29	0
		%	4.3	5.3	15.4	0.0
	Men (n = 111)	N	5	5	18	0
		%	4.5	4.5	16.2	0.0
	Women (n = 77)	N	3	5	11	0
		%	3.9	6.5	14.3	0.0
Teachers (combined across occupational areas)	(n = 717)	N	60	16	52	5
		%	8.4	2.2	7.2	.7
	Men (n = 432)	N	33	12	41	3
		%	7.6	2.8	9.5	.7
	Women (n = 285)	N	27	4	11	2
		%	9.6	1.4	3.9	.7
Agriculture Teachers	Men (n = 43)	N	3	0	2	0
		%	7.0	0.0	4.7	0.0
	Women (n = 4)	N	1	0	0	0
		%	25.0	0.0	0.0	0.0
Trade and Industrial Teachers	Men (n = 259)	N	22	8	28	2
		%	8.5	3.1	10.8	.8
	Women (n = 14)	N	2	0	0	0
		%	15.4	0.0	0.0	0.0
Technical Occupation Teachers	Men (n = 31)	N	3	1	5	0
		%	9.7	3.2	16.1	0.0
	Women (n = 3)	N	0	0	0	0
		%	0.0	0.0	0.0	0.0
Distributive Education Teachers	Men (n = 33)	N	1	1	2	0
		%	3.0	3.0	6.1	0.0
	Women (n = 11)	N	0	0	0	0
		%	0.0	0.0	0.0	0.0
Business and Office Teachers	Men (n = 53)	N	1	1	4	1
		%	1.9	1.9	7.5	1.9
	Women (n = 121)	N	10	2	5	1
		%	8.2	1.7	4.1	.8
Health Occupation Teachers	Men (n = 2)	N	0	0	0	0
		%	0.0	0.0	0.0	0.0
	Women (n = 45)	N	5	0	2	0
		%	11.1	0.0	4.4	0.0
Home Economics Teachers	Men (n = 4)	N	2	0	0	0
		%	50.0	0.0	0.0	0.0
	Women (n = 84)	N	9	2	4	1
		%	10.7	2.4	4.8	1.2

vocational education.* The following observations emerge from a review of these tables:

- State level staff mention constraints resulting from 'counselor attitudes or lack of awareness' and 'constraints resulting from pervasive stereotyping' in education with approximately equal frequency--19.7% and 18.5%, respectively. Another 11% of the respondents mentioned 'teacher attitudes or lack of awareness.' District level staff mention constraints of each type less frequently than do state staff, but give relatively more emphasis to counselor attitudes and lack of awareness. District figures for constraints arising from counselors, pervasive stereotyping, and teachers are: 14.3%, 8.2% and 6.1%. The percentage of school staff mentioning constraints of each type are: 7.5%, 8.9%, and 2.8%, respectively.

- At the district level, women are much more likely than men to mention pervasive stereotyping (21% versus 6%); at the school level, however, the direction is reversed, although the difference in percentages is much smaller--11% for men,6% for women. Male district staff, on the other hand, are more likely to mention constraints arising from counselor attitudes or lack of awareness than are their female counterparts, by 15% to 8%. At the school level itself, counselors are more likely than teachers to point to pervasive stereotyping as a constraint, by 15% to 7%.

In sum, relatively few constraints were mentioned within general education, with the liklihood decreasing that a staff member will mention such a constraint as one moves from the state to the district to the school level. Sex differences appear, but are inconsistent across levels in the educational system. For example, women at the district level are much more likely than men to mention a constraint in the 'pervasive stereotyping' category, only slightly more likely at the state level, and slightly less likely at the school level.

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*This difference may well be attributable to the phrasing of the question which asked respondents to identify constraints to achieving equity in vocational education. Thus, a respondent might know of inequities in the general education program, but not mention them if they had no direct and obvious bearing on sex equity in vocational education. For example, discriminatory policies which discourage females from taking mathematics courses might be seen by a respondent to have little or no bearing on vocational programs--even though the merit of this view may be arguable. On the other hand, this same respondent may see counselor attitudes that lead to girls being kept out of junior high school shop classes and boys being kept out of home economics to be very important.

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CONSTRAINTS ARISING FROM EMPLOYER ATTITUDES OR ACTIONS

Tables F.11 and F.12 show the frequency with which various kinds of constraints were mentioned by vocational educators as arising from employer attitudes or actions. The subcategories are:

- Lack of job openings
- Employer attitudes/lack of awareness
- Absence of support from employers or other workers after hiring
- Other

State, district, and school level staff were about equally likely to mention a constraint in this area generally: .69, .63, and .62 constraints, respectively, were mentioned per state, district, and school level staff member. The following emerge from an examination of Tables F.11 and F.12:

- 'Employer attitudes and lack of awareness' was the most commonly mentioned constraint at all levels, being cited by 58% of state staff, 54% of district staff, and 57% of school staff. No other constraint was mentioned by as much as 10% of the respondents.
- There are some sex differences in the frequency with which employer attitudes and lack of awareness was mentioned. At the state level, 59.7% of the men and 54.5% of the women mentioned this constraint; this largely reflects the difference between male and female occupational area specialists--57.0% versus 48.9%. At the district level, women are more likely to mention this constraint than are men, by 62.5% to 52.8%; this largely reflects the difference between female and male Local Directors of Counseling--66.7% versus 38.9%. At the school level, male and female teachers are within one percent of each other, but male counselors are somewhat more likely to cite this constraint than are their female counterparts, by 68.5% to 62.3%.

In sum, constraints arising from employer attitudes or lack of awareness are cited much more frequently than any other kind of constraint. Women are more likely than men to mention this constraint at the state and district levels, but less likely to do so at the school levels.

Table F.11

CONSTRAINTS ARISING FROM EMPLOYER ATTITUDES OR ACTIONS AS SEEN BY STATE LEVEL RESPONDENTS

			Lack of Job Openings/ Unemployment Situation	Employer Attitudes/ Lack of Awareness	Absence of Support from Employer or Other Workers After Hiring	Other
ALL RESPONDENT CATEGORIES COMBINED						
	Total (n = 437)	N	12	255	17	17
		%	2.7	58.4	3.9	3.9
	Men (n = 315)	N	11	188	12	12
		%	3.5	59.7	3.8	3.8
	Women (n = 122)	N	1	67	5	5
		%	.8	54.9	4.1	4.1
RESPONDENTS WITH OVERALL RESPONSIBILITY						
Total Across Respondent Areas	(n = 290)	N	8	175	8	12
		%	2.8	60.3	2.8	4.1
	Men (n = 215)	N	7	131	7	8
		%	3.3	60.9	3.3	3.7
	Women (n = 75)	N	1	44	1	4
		%	1.3	58.7	1.3	5.3
State Directors	Men (n = 49)	N	3	31	3	4
		%	6.1	63.3	6.1	8.2
	Women (n = 1)	N	0	1	0	0
		%	0.0	100.0	0.0	0.0
Sex Equity Coordinators	Men (n = 1)	N	0	1	0	0
		%	0.0	100.0	0.0	0.0
	Women (n = 49)	N	1	28	1	3
		%	2.0	57.1	2.0	6.1
Executive Directors of State Advisory Councils	Men (n = 47)	N	1	26	0	1
		%	2.1	55.3	0.0	2.1
	Women (n = 3)	N	0	1	0	0
		%	0.0	33.3	0.0	0.0
Directors of Professional Development	Men (n = 38)	N	1	26	1	0
		%	2.6	68.4	2.6	0.0
	Women (n = 6)	N	0	3	0	0
		%	0.0	50.0	0.0	0.0
Directors of Research, Management, and Evaluation	Men (n = 45)	N	1	29	2	2
		%	2.2	64.4	4.4	4.4
	Women (n = 6)	N	0	3	0	1
		%	0.0	50.0	0.0	16.7
Directors of Guidance and Counseling	Men (n =35)	N	1	18	1	1
		%	2.9	51.4	2.9	2.9
	Women (n = 10)	N	0	8	0	0
		%	0.0	80.0	0.0	0.0
OCCUPATIONAL AREA SPECIALISTS						
Total Across Occupational Areas	(n = 147)	N	4	80	9	5
		%	2.7	54.4	6.1	3.4
	Men (n = 100)	N	4	57	5	4
		%	4.0	57.0	5.0	4.0
	Women (n = 47)	N	0	23	4	1
		%	0.0	48.9	8.5	2.1
Directors of Agricultural Occupations	Men (n = 22)	N	1	13	1	0
		%	4.5	59.1	4.5	0.0
Directors of Trade and Industrial Occupations	Men (n = 30)	N	1	14	1	1
		%	3.3	46.7	3.3	3.3
Directors of Technical Occupations	Men (n = 9)	N	1	5	1	0
		%	11.1	55.6	11.1	0.0
Directors of Distributive Education	Men (n = 17)	N	1	11	0	0
		%	5.9	64.7	0.0	0.0
	Women (n = 1)	N	0	1	0	0
		%	0.0	100.0	0.0	0.0
Directors of Business and Office Occupations	Men (n = 19)	N	0	12	2	2
		%	0.0	63.2	10.5	10.5
	Women (n = 6)	N	0	3	0	0
		%	0.0	50.0	0.0	0.0
Directors of Health Occupations	Men (n = 3)	N	0	2	0	1
		%	0.0	66.7	0.0	33.3
	Women (n = 16)	N	0	5	3	1
		%	0.0	31.3	18.8	6.3
Directors of Home Economics Occupations	Women (n = 24)	N	0	14	1	0
		%	0.0	58.3	4.2	0.0

Table F.12

CONSTRAINTS ARISING FROM EMPLOYER ATTITUDES OR ACTIONS AS SEEN BY LOCAL AND SCHOOL LEVEL RESPONDENTS

			Lack of Job Openings/ Unemployment Situation	Employer Attitudes/ Lack of Awareness	Absence of Support from Employer or Other Workers After Hiring	Other
DISTRICT LEVEL STAFF						
Overall for District Staff	(n = 147)	N	8	80	2	3
		%	5.4	54.4	1.4	2.0
Overall by Sex	Men (n = 123)	N	7	65	2	3
		%	5.7	52.8	1.6	2.4
	Women (n = 24)	N	1	15	0	0
		%	4.2	62.5	0.0	0.0
Overall by Position						
Local Directors of Vocational Education	(n = 96)	N	5	56	2	1
		%	5.2	58.3	2.1	1.0
	Men (n = 87)	N	5	51	2	1
		%	5.7	58.6	2.3	1.1
	Women (n = 9)	N	0	5	0	0
		%	0.0	55.6	0.0	0.0
Local Directors of Counseling	(n = 51)	N	3	24	0	2
		%	5.9	47.1	0.0	3.9
	Men (n = 36)	N	2	14	0	2
		%	5.6	38.9	0.0	5.6
	Women (n = 15)	N	1	10	0	0
		%	6.7	66.7	0.0	0.0
VOCATIONAL SCHOOL STAFF						
Overall School Total	(n = 905)	N	5	518	24	13
		%	.6	57.2	2.7	1.4
Overall School Total by Sex	Men (n = 543)	N	3	312	11	13
		%	.6	57.5	2.0	2.4
	Women (n = 362)	N	2	206	13	0
		%	.6	56.9	3.6	0.0
Counselors	(n = 188)	N	3	124	2	2
		%	1.6	66.0	1.1	1.1
	Men (n = 111)	N	1	76	2	2
		%	.9	68.5	1.8	1.8
	Women (n = 77)	N	2	48	0	0
		%	2.6	62.3	0	0
Teachers (combined across occupational areas)	(n = 717)	N	2	394	22	11
		%	.3	55.0	3.1	1.5
	Men (n = 432)	N	2	235	9	11
		%	.5	54.6	2.1	2.5
	Women (n = 285)	N	0	158	13	0
		%	0.0	55.4	4.6	0.0
Agriculture Teachers	Men (n = 43)	N	0	22	1	1
		%	0.0	51.2	2.3	2.3
	Women (n = 4)	N	0	1	0	0
		%	0.0	25.0	0.0	0.0
Trade and Industrial Teachers	Men (n = 259)	N	2	137	5	8
		%	.8	52.9	1.9	3.1
	Women (n = 14)	N	0	7	0	0
		%	0.0	50.0	0.0	0.0
Technical Occupation Teachers	Men (n = 31)	N	0	17	0	0
		%	0.0	54.8	0.0	0.0
	Women (n = 3)	N	0	3	0	0
		%	0.0	100.0	0.0	0.0
Distributive Education Teachers	Men (n = 33)	N	1	24	0	1
		%	3.0	72.7	0.0	3.0
	Women (n = 11)	N	0	8	0	0
		%	0.0	72.7	0.0	0.0
Business and Office Teachers	Men (n = 53)	N	0	30	2	1
		%	0	56.6	3.8	1.9
	Women (n = 121)	N	0	80	5	0
		%	0	66.1	4.1	0.0
Health Occupation Teachers	Men (n = 2)	N	0	1	0	0
		%	0.0	50.0	0.0	0.0
	Women (n = 45)	N	0	16	4	0
		%	0.0	35.6	8.9	0.0
Home Economics Teachers	Men (n = 4)	N	0	2	1	0
		%	0.0	50.0	25.0	0.0
	Women (n = 84)	N	0	40	4	0
		%	0.0	47.6	4.8	0.0

CONSTRAINTS RESULTING FROM COMMUNITY ATTITUDES AND VALUES

Tables F.13 and F.14 show the responses of those who mentioned a constraint arising from community attitudes and values. The subcategories within this area are:

- Fear of and resistance to change
- Parental attitudes and influence
- Pervasive stereotyping/conservative attitudes and traditionalism
- Other

More constraints were mentioned in this domain generally than in any other: 1.04, .96, and .82 constraints were mentioned for each state, district, and school level staff member, respectively. The following observations emerge from an examination of Tables F.13 and F.14:

- 'Pervasive stereotyping, conservative attitudes and traditionalism' was the most commonly mentioned constraint at each level, being among the responses of 70.7% of the state level respondents, 62.6% of the district level respondents, and 68.4% of the school level respondents. Next most frequently mentioned as a constraint was 'parental attitudes and influences,' which was mentioned by about 30% of state and district level staff, and about 13% of school level staff. 'Fear of and resistance to change was mentioned' by less than 4% of the staff at each level.

- An essentially equal percentage of women and men at the state level mentioned 'pervasive stereotyping conservative attitudes and traditionalism;' among those with overall responsibility, about 4% more men than women mentioned this type of constraint, while about 6% more female than male occupational area specialists mentioned it. At the district and school levels, however, women were much more likely to mention 'pervasive stereotyping, conservative attitudes and traditionalism' than were men. The figures are 79.2% versus 56.9% at the district level, and 73.8% versus 64.8% at the school level. Differences of at least 16% separate women and men serving in both of the district level positions listed in Table F.15; female and male teachers are separated by 8.1%, male and female counselors by 12.4%.

- Men and women at each level are in close agreement on the importance of parental attitudes and influences as a constraint--at no level does the percentage of women mentioning this as a constraint differ by more than 3% from the percen-

Table F.13

CONSTRAINTS ARISING FROM COMMUNITY ATTITUDES OR VALUES AS SEEN BY STATE LEVEL RESPONDENTS

			Fear of and Resistance to Change	Parental Attitudes and Influence	Pervasive Stereotyping/ Conservative Attitudes and Traditionalism	Other
ALL RESPONDENT CATEGORIES COMBINED						
	Total (n = 437)	N	15	123	309	3
		%	3.4	28.1	70.7	.7
	Men (n = 315)	N	9	88	223	3
		%	2.9	27.9	70.8	1.0
	Women (n = 122)	N	6	35	86	0
		%	4.9	28.7	70.5	0.0
RESPONDENTS WITH OVERALL RESPONSIBILITY						
Total Across Respondent Areas	(n = 290)	N	12	75	209	3
		%	4.1	25.9	72.1	1.0
	Men (n = 215)	N	8	56	157	3
		%	3.7	26.0	73.0	1.4
	Women (n = 75)	N	4	19	52	0
		%	5.3	25.3	69.3	0.0
State Directors	Men (n = 49)	N	3	17	35	2
		%	6.1	34.7	71.4	4.1
	Women (n = 1)	N	0	0	1	0
		%	0.0	0.0	100.0	0.0
Sex Equity Coordinators	Men (n = 1)	N	0	1	0	0
		%	0.0	100.0	0.0	0.0
	Women (n = 49)	N	4	14	34	0
		%	8.2	28.6	69.4	0.0
Executive Directors of State Advisory Councils	Men (n = 47)	N	1	16	30	0
		%	2.1	34.0	63.8	0.0
	Women (n = 3)	N	0	0	1	0
		%	0.0	0.0	33.3	0.0
Directors of Professional Development	Men (n = 38)	N	2	7	29	0
		%	5.3	18.4	76.3	0.0
	Women (n = 6)	N	0	1	6	0
		%	0.0	16.7	100.0	0.0
Directors of Research, Management, and Evaluation	Men (n = 45)	N	1	9	35	0
		%	2.2	20.0	77.8	0.0
	Women (n = 6)	N	0	2	3	0
		%	0.0	33.3	50.0	0.0
Directors of Guidance and Counseling	Men (n = 35)	N	1	6	28	1
		%	2.9	17.1	80.0	2.9
	Women (n = 10)	N	0	2	7	0
		%	0.0	20.0	70.0	0.0
OCCUPATIONAL AREA SPECIALISTS						
Total Across Occupational Areas	(n = 147)	N	3	48	100	0
		%	2.0	32.6	68.0	0.0
	Men (n = 100)	N	1	32	66	0
		%	1.0	32.0	66.0	0.0
	Women (n = 47)	N	2	16	34	0
		%	4.3	34.0	72.3	0.0
Directors of Agricultural Occupations	Men (n = 22)	N	0	7	16	0
		%	0.0	31.8	72.7	0.0
Directors of Trade and Industrial Occupations	Men (n = 30)	N	0	13	17	0
		%	0.0	43.3	56.7	0.0
Directors of Technical Occupations	Men (n = 9)	N	1	4	7	0
		%	11.1	44.4	77.8	0.0
Directors of Distributive Education	Men (n = 17)	N	0	4	11	0
		%	0.0	23.5	64.7	0.0
	Women (n = 1)	N	0	0	1	0
		%	0.0	0.0	100.0	0.0
Directors of Business and Office Occupations	Men (n = 19)	N	0	4	12	0
		%	0.0	21.1	63.2	0.0
	Women (n = 6)	N	0	3	4	0
		%	0.0	50.0	66.7	0.0
Directors of Health Occupations	Men (n = 3)	N	0	0	3	0
		%	0.0	0.0	100.0	0.0
	Women (n = 16)	N	1	4	12	0
		%	6.3	25.0	75.0	0.0
Directors of Home Economics Occupations	Women (n = 24)	N	1	9	17	0
		%	4.2	37.5	70.8	0.0

Table F.14

CONSTRAINTS ARISING FROM COMMUNITY ATTITUDES OR VALUES AS SEEN BY LOCAL AND SCHOOL LEVEL RESPONDENTS

			Fear of and Resistance to Change	Parental Attitudes and Influence	Pervasive Stereotyping/ Conservative Attitudes and Traditionalism	Other
DISTRICT LEVEL STAFF						
Overall for District Staff	(n = 147)	N	3	45	92	1
		%	2.0	30.6	62.6	.7
Overall by Sex	Men (n = 123)	N	2	37	73	1
		%	1.6	30.1	56.9	.8
	Women (n = 24)	N	1	8	19	0
		%	4.2	33.3	79.2	0.0
Overall by Position						
Local Directors of Vocational Education	(n = 96)	N	2	29	59	0
		%	2.1	30.2	61.5	0.0
	Men (n = 87)	N	2	27	52	0
		%	2.3	31.0	59.8	0.0
	Women (n = 9)	N	0	2	7	0
		%	0.0	22.2	77.8	0.0
Local Directors of Counseling	(n = 51)	N	1	16	33	1
		%	2.0	31.4	64.7	2.0
	Men (n = 36)	N	0	10	21	1
		%	0.0	27.8	58.4	2.8
	Women (n = 15)	N	1	6	12	0
		%	6.7	40.0	80.0	0.0
VOCATIONAL SCHOOL STAFF						
Overall School Staff	(n = 905)	N	9	116	619	1
		%	1.0	12.8	68.4	.1
Overall School Total by Sex	Men (n = 543)	N	5	68	352	1
		%	.9	12.5	64.8	.2
	Women (n = 362)	N	4	48	267	0
		%	1.1	13.3	73.8	0.0
Counselors	(n = 188)	N	3	29	140	1
		%	16.0	15.4	74.5	.5
	Men (n = 111)	N	2	21	77	1
		%	1.8	18.9	69.4	.9
	Women (n = 77)	N	1	8	63	0
		%	1.3	10.4	81.8	0.0
Teachers (combined across occupational areas)	(n = 717)	N	6	87	479	0
		%	.8	12.1	66.8	0.0
	Men (n = 431)	N	3	47	275	0
		%	.7	10.9	63.7	0.0
	Women (n = 284)	N	3	40	204	0
		%	1.1	14.1	71.8	0.0
Agriculture Teachers	Men (n = 43)	N	0	3	24	0
		%	0.0	7.0	55.8	0.0
	Women (n = 4)	N	0	0	2	0
		%	0.0	0.0	50.0	0.0
Trade and Industrial Teachers	Men (n = 258)	N	2	28	159	0
		%	.8	10.8	61.4	0.0
	Women (n = 14)	N	0	0	10	0
		%	0.0	0.0	71.4	0.0
Technical Occupation Teachers	Men (n = 31)	N	0	3	23	0
		%	0.0	9.7	74.2	0.0
	Women (n = 3)	N	0	2	1	0
		%	0.0	66.7	33.3	0.0
Distributive Education Teachers	Men (n = 33)	N	1	4	22	0
		%	3.0	12.1	66.7	0.0
	Women (n = 11)	N	0	2	7	0
		%	0.0	18.2	63.6	0.0
Business and Office Teachers	Men (n = 53)	N	0	7	37	0
		%	0.0	13.2	70.9	0.0
	Women (n = 121)	N	2	16	85	0
		%	1.7	13.2	70.2	0.0
Health Occupation Teachers	Men (n = 2)	N	0	0	2	0
		%	0.0	0.0	100.0	0.0
	Women (n = 45)	N	0	4	34	0
		%	0.0	8.9	75.6	0.0
Home Economics Teachers	Men (n = 4)	N	0	2	1	0
		%	0.0	50.0	25.0	0.0
	Women (n = 83)	N	1	16	62	0
		%	1.2	19.3	74.7	0.0

tage of men mentioning it. Differences by position are similarly small at the district and school levels. At the same time, however, state level occupational area specialists are more likely to mention this constraint than are their colleagues with overall responsibility by 32.6% to 25.9%.

In sum, constraints in this domain were mentioned more commonly than constraints in any other. Constraints in the 'pervasive stereotyping, conservative attitudes and traditionalsm' category were the most commonly mentioned at each level of the educational system. Women at the school and district levels were much more likely to mention a constraint in this category than were their male counterparts. Next most commonly mentioned were constraints in the 'parental attitudes and influence' category. Men and women at each level were about equally likely to mention such a constraint, never differing by more than about three percentage points; school level staff, however, are much less likely to mention this constraint than are staff at other levels.

SUMMARY

The following points summarize the major findings of this chapter:

- Vocational educators at all levels feel that community attitudes and values present the major constraint to sex equity in vocational education. Within this area, "pervasive stereotyping, conservative attitudes, and traditionalism" are felt to present the biggest problems. Next most commonly mentioned were constraints emmanating from parental attitudes and influences. However school level staff were much less likely to mention parental constraints than staff at other levels.

- Considering constraints within vocational education, state and district staff are much more likely than school staff to point to the attitudes of teachers. School staff are more likely to cite student attitudes as a constraint. Women are more likely than men to cite the attitudes of vocational administrators as a constraint to equity.

- Relatively few constraints were mentioned in education outside of vocational education. State and district staff are more likely than school staff to see this as an area of constraint.

- Vocational educators feel that the movement toward equity is inhibited more by employer attitudes than by a lack of job openings or discrimination once nontraditional workers are on the job.

III. SUMMARY AND CONCLUSIONS

INTRODUCTION

The Vocational Education Equity Study is the result of a Congressional mandate. Section 523(a) of the Education Amendments of 1976 (P.L. 94-432) states:

> The Commissioner of Education shall carry out a study of the extent to which sex discrimination and sex stereotyping exist in all vocational education programs assisted under the Vocational Education Act of 1963, and of the progress that has been made to reduce or eliminate such discrimination and stereotyping in such programs and in the occupations for which such programs prepare students.

The purpose of this chapter is to summarize the major findings of this study. It is hoped that the results will be useful not only to Congressional decision-makers, but also to vocational education administrators, practitioners, and researchers.

The mandate was to assess sex discrimination and stereotyping in all vocational programs. Given their numbers, this is, of course, virtually impossible. However, sampling procedures were designed for this study which yield an accurate estimate for all vocational programs. Forty-nine states and the District of Columbia were visited in the spring of 1978. In addition, a school sample of 100 schools was selected on the stratified random basis, using the stratification variables of region of the country, city size, and type of school. The types of schools included in the sample are: comprehensive high schools, vocational high schools, vocational centers, technical institutes, and community/junior colleges. From each school, 4 counselors, 8 teachers, and 35 students were sampled, including sufficient numbers of nontraditional and ethnic minority students to determine if their responses differ from those of other students. Staff at each school's corresponding local education agency were also interviewed. By weighting the responses of all those interviewed, it is thus possible to get estimates for the total national population.

This chapter is organized around the seven major objectives* of the study. These objectives address not only the existence of discrimination and stereotyping, but also the actions which states, local education agencies, and schools are taking to foster greater sex equity. The study was also given the charge to examine the presence of external factors which contribute to stereotyping and constrain progress to eliminate it, as well as to identify actual programs which appear to be successful in fostering greater equity. Furthermore, based on the results of this study, criteria have been identified which can be used in assessing discrimination and stereotyping in vocational programs in the future. At the conclusion of this chapter the contractors recommendations are made.

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*For purposes of summarizing the results, two of the original eight objectives have been combined. The objectives are listed in their original form and order in Volume IV of this Final Report, the Replication Handbook.

Objective 1. ASSESS THE EXTENT TO WHICH SEX DISCRIMINATION AND SEX STEREOTYPING EXIST IN ALL VOCATIONAL PROGRAMS ASSISTED UNDER THE VOCATIONAL EDUCATION ACT OF 1963 AS AMENDED, AND THE PROGRESS WHICH HAS BEEN MADE IN REDUCING SUCH INEQUITIES.

This discussion must begin with the definitions of "sex discrimination" and "sex stereotyping." The definitions which appear in the Office of Education's regulations for Title II of the Education Amendments of 1976 are as follows:

> "Sex discrimination" means any action which limits or denies a person or a group of persons opportunities, privileges, roles, or rewards on the basis of sex.
>
> "Sex stereotyping" means attributing behaviors, abilities, interests, values, and roles to a person or group of persons on the basis of their sex.

According to these definitions, sex discrimination refers to specific actions which limit or deny opportunities, while stereotyping is subtler and more attitudinal. However, these stereotypic attitudes also serve to limit or deny opportunities. Thus in the following discussion, discrimination will refer to policies, practices, and behaviors, and stereotyping will refer to attitudes, all of which serve to limit or deny opportunities on the basis of sex. The extent of sex discrimination and stereotyping will be discussed under the following headings:

- Enrollment Patterns
- Staffing Patterns
- Attitudes Toward Equity

Enrollment Patterns

To gain a full understanding of enrollment patterns of males and females in vocational education it is necessary to examine the patterns within each specific occupational training area, rather than within just the seven broad areas. This type of analysis allows one to determine if the gain in female enrollment in the trade and industrial area, for example, is accounted for by a gain in the traditionally female field of cosmetology or in a traditionally male field such as auto mechanics. Using 1972 BOAE enrollment figures, training programs were classified as traditionally female (80% or more female), traditionally male (80% or more male), or mixed.

The data reveal that in 1978 enrollment patterns are overwhelmingly sex segregated and that progress in reducing sex segregation since 1972 has been minimal. The following facts stand out:

- In the broad areas of health, home economics, and business, women constitute over 75% of all enrollments. In the broad areas of trade and industrial, technical, and agriculture, men constitute over 75% of the enrollments. Distributive education is the only mixed program area. Men constitute approximately 59% of the total enrollments here.

- Women make up over 90% of the enrollment in traditionally female occupations in business and office, health, and trade and industrial areas. This is substantially the same picture revealed by a 1972 BOAE survey, apparently reversing an increase in male enrollment reported by BOAE in 1976. There was a decline, however, in the percentage of women enrolled in traditionally female home economics courses from 93% to 83%.

- Men continue to predominate in traditionally male occupations, but there has been some increase in the number of women enrolled in traditionally male programs in technical and agriculture fields. About 12% of the students enrolled in such programs are women up from about 9% in technical and 4% in agriculture in the 1972 BOAE survey. Women then and now make up a bit over 6% of the enrollment in traditionally male trade and industrial programs.

- The percentage of male students in traditionally female areas (10.9%) is greater than the percentage of female students in traditionally male areas (7.8%).

In sum, training programs are clearly differentiated by sex and there appears to have been little or no movement in the direction of equalizing enrollment over the last several years.

Whether enrollment patterns which are clearly differentiated by sex are the result of discrimination within vocational education cannot be determined from enrollment data alone. However, when programs are clearly populated by a single sex, students are being channeled into those programs on the basis of sex through some mechanism, be it external or internal. One must be careful, however, not to expect or require that the distribution of the sexes in programs be exactly equal. The objective of equity legislation is to remove barriers and expand opportunities, not to artificially legislate that equal numbers of men and women be in each program. The key is whether sex-related restrictions exist. Table III.1 shows how common state, district, and school level staff believe various restrictive practices to be. The following summarizes the findings related to such restriction:

- Staff report that the most blatantly discriminatory behaviors--rules and quotas denying or limiting admissions--have been curtailed. less than 5% feel these practices are most in need of change.
- However, practices which serve to discourage students from entering a nontraditional area are perceived to be much more common. These practices include unwritten understandings that some courses are for a single sex, and counselor suggestions of traditional options and discouragements of nontraditional options. Approximately 60% of all staff feel these practices are most in need of change.
- For the student who has already enrolled in a nontraditional course, approximately equal numbers of staff feel that teacher reluctance to have nontraditional students in their courses has changed the most in the past five years, and see it still in need of change.
- Few students report that school staff have discouraged them from entering nontraditional areas. The percentage of females who were discouraged is higher than the percentage of males. For men and women in traditionally male, mixed, and female programs the figures are as follows (weighted data):

	Percent Discouraged By:				
Women enrolled in ...	Counselors	Teachers	Mothers	Fathers	Friends
Traditionally male programs	2.4	2.0	9.9	5.5	9.9
Traditionally mixed programs	1.2	2.6	3.8	2.8	4.5
Traditionally female programs	1.0	1.2	3.5	1.8	5.1
Men enrolled in ...					
Traditionally male programs	0.7	0.3	0.8	1.2	4.7
Traditionally mixed programs	0.2	0.2	0.9	1.2	4.7
Traditionally female programs	1.0	1.0	1.0	1.9	12.0

Table III.1

STAFF PERCEPTIONS OF THE PREVALENCE OF VARIOUS INEQUITABLE PRACTICES

State Level

Practice	Frequency[a] $\bar{X}$	Frequency[a] S.D.	Most Change Over Past Five Years N	Most Change Over Past Five Years %	Most Change Still Needed N	Most Change Still Needed %
Practices overtly limiting entry	--	--	112	32.6	2	.6
Rules denying admission	2.94	.28	99	28.6	1	.3
Quotas limiting admission	2.96	.20	13	3.8	1	.3
Practices discouraging to nontraditional enrollment	--	--	130	37.5	222	64.7
Unwritten understandings	2.26	.73	85	24.7	73	21.3
Counselors suggest traditional options	1.84	.71	32	9.3	128	37.3
Counselors discourage nontraditional options	2.25	.74	13	3.8	21	6.1
Factors encountered after enrollment	--	--	80	23.2	91	26.6
Teacher reluctance to have nontraditional students	2.27	.70	63	18.3	53	15.5
Sex considered in placement etc.	2.11	.77	17	4.9	38	11.1
No Choice	----	—	22	6.4	28	8.1

District Level / School Level

Practice	District Frequency $\bar{X}$	District Frequency S.D.	District Most Change Over Past Five Years N	District Most Change Over Past Five Years %	District Still Needed N	District Still Needed %	School Frequency $\bar{X}$	School Frequency S.D.	School Most Change Over Past Five Years N	School Most Change Over Past Five Years %	School Most Change Still Needed N	School Most Change Still Needed %
Practices overtly limiting entry	--	--	45	32.8	1	.8	--	--	190	26.6	28	4.3
Rules denying admission	2.99		40	29.2	1	.8	2.95		172	24.1	16	2.5
Quotas limiting admission	2.97		5	3.6	0	0.0	2.97		18	2.5	12	1.8
Practices discouraging to nontraditional enrollment	--	--	62	45.2	69	56.1	--	--	375	52.6	414	63.4
Unwritten understandings	2.67		38	27.7	25	20.3	2.60		233	32.7	169	25.9
Counselors suggest traditional options	2.45		16	11.7	30	24.4	2.46		72	10.1	90	13.8
Feeder school counselors suggest traditional options	2.02[b]		5	3.6	6	4.9	2.14		44	6.2	92	14.1
Counselors discourage nontraditional options	2.76		2	1.5	6	4.9	2.81		20	2.8	27	4.1
Feeder school counselors discourage nontraditional options	2.88[b]		1	.7	2	1.6	2.63		6	.8	36	5.5
Factors encountered after enrollment	--	--	30	21.9	53	43.1	--	--	147	20.6	210	32.2
Teacher reluctance to have nontraditional students	2.54		21	15.3	26	21.1	2.74		92	12.9	85	13.0
Sex considered in placement	2.49		9	6.6	27	22.0	2.40		55	7.7	125	19.2

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[a] Values used in computing $\bar{X}$ (mean): 1. Commonly (at least 50% of the time)
2. Just some (less than 50% of the time)
3. Rarely, if at all

[b] Based only on responses of Local Directors of Counseling.

Can the school play a supportive role in encouraging nontraditional enrollment, or are the factors determining student enrollment beyond the control of the school? While it seems obvious that society beyond the schoolhouse walls exerts a powerful influence on the aspirations of young people, there is a strong suggestion in this study that the school can have an impact. This comes from the fact that there is a strong positive correlation between the level of equity activity in a school and the proportion of nontraditional enrollment in that school. Thus equity efforts do appear to make a difference in equalizing enrollment patterns. Volume III of this Final Report describes examples of programs designed to realize this effect.

Staffing Patterns

The data clearly show that there is strong differentiation by sex of vocational staffing positions. The following summarizes the findings at the state, district, and school levels. A lack of comparison data from other years precludes assessment of progress.

- State level. Men predominate as occupational area specialists in each of the traditionally male occupational areas (all of the 61 interviewed), in distributive education (17 of the 18 interviewed), and in business and office occupations. Male predominance is least dramatic in business and office areas--19 of the 25 staff members interviewed in the present study were men. Women predominate in home economics (all of the 24 interviewed) and in health (16 of the 19 interviewed). Six staff with overall, rather than occupational program area, responsibility were interviewed in each state. Over 85% of the people in seven of these positions were men. The two exceptions were Sex Equity Coordinator (98% female), and Director of Guidance and Counseling (22% female).

- District level. About 90% of Local Directors of Vocational Education interviewed in the present study were men. Each of the nine women interviewed was in jurisdictions from which a comprehensive high school was sampled. Twenty-nine percent of the Local Directors of Counseling and Guidance interviewed were women.

- School counselors. Fifty-nine percent of the counselors interviewed at schools sampled in the present study were men, as were about 51% of the feeder school counselors.

- School Instructors. Persons of one or the other sex predominate as teachers in each occupational area. Comparison of data collected in the present study with data collected in 1974 by the Office of Civil Rights shows no movement away from traditional patterns. If anything, the opposite is true, but caution must be exercised in comparing data across studies unless the differences observed are truly dramatic.

The figures for the percentage of female instructors by major program area in the two studies are:

	1974 OCR	Present Study
Health Occupations	88.8	95.5
Home Economics	84.4	88.7
Business & Office	53.7	69.8
Distributive Education	26.9	25.4
Technical Occupations	8.3	4.3
Trade & Industrial	9.1	5.5
Agriculture	5.0	12.3

In sum, there are very few positions at any level in which one of the sexes does not predominate.

There is also evidence that efforts to achieve equity in staffing patterns have a positive effect. Those schools with higher "Internal Affirmative Action" Activity Indexes also tended to be those with higher proportions of nontraditional teachers. The effect was greater for women teaching traditionally male occupations than for men teaching traditionally female occupations.

Attitudes Toward Equity

In general vocational educators feel that the various inequitable practices are not justifiable. The following figures show the percentage of the interviewees who felt each of the practices to be justifiable under some circumstances:

	State Level	District Level	School Level
Rules denying admission	2%	7%	7%
Quotas limiting admission	4%	3%	6%
Unwritten understandings that some courses are for a single sex	2%	3%	8%
Vocational school counselors suggesting predominantly traditional options to undecided students	6%	9%	13%
Vocational school counselors discouraging nontraditional choices by already interested students	4%	5%	4%
Teacher reluctance to have nontraditional students in class	6%	6%	5%
Sex being taken into consideration in determining the type of placement	25%	24%	27%

Thus, for all but one of the practices, more than 90% of the state and district staff interviewed were unable to think of a circumstance in which the practice in question is justified. At the school level, this was true for all but two of the practices. Placement is highest at each level.

Students appear to hold the following attitudes toward equity:

- Generally students feel that men and women should have equal opportunity to train for good, well-paying jobs and that there is nothing wrong with encouraging nontraditional enrollments.
- However, in terms of the roles that men and women will fill in the labor force, the majority of students feel there are at least some occupations for which men and women should not have equal access. The percentage who think there are at least some jobs which should not be equally accessible range from a low of 59.7% for women in traditionally male areas to a high of 76.1% for men in traditionally male areas.
- Approximately 60% of students agree at least somewhat that men and women are suited to different jobs. Again, women in traditionally male occupations are least likely to agree (51.1%), while men in traditionally male occupations are most likely to be in agreement (67.5%).
- Over 70% of students felt that men would prefer to be enrolled in classes that have mostly men, while over 60% felt that women would prefer to be enrolled in classes that have mostly women.
- Females display more pro-equity opinions than males on each of the above items, and nontraditional students are more likely to be pro-equity than traditional students of the same sex; the within sex differences, however, never exceed 10%.
- In general, older students display more pro-equity than younger students.
- Student attitudes did not differ as a function of ethnicity.

In sum, while students are in agreement that sex should not bar someone from the chance to train for a good, well-paying job, over half of the students are dubious that men and women are equally suited for all jobs or that access to all jobs should be equal.

Objective 2. IDENTIFY AND ANALYZE THE EXTENT TO WHICH PROGRESS HAS BEEN MADE IN REDUCING SEX DISCRIMINATION AND SEX STEREOTYPING IN OCCUPATIONS FOR WHICH VOCATIONAL STUDENTS TRAIN.

This study did not collect new data from employers, but did analyze existing data from the Bureau of Labor Statistics on the participation rates of males and females in the occupations for which vocational students train, as well as wages of males and females in the labor force. This analysis is contained in detail in Volume II of the Final Report, Literature and Secondary Data Review. The major findings related to this objective are summarized in this section under the following headings:

- Trends in the sex segregation of occupations for which vocational education programs train students
- Wages of males and females in the labor force

Trends in the Sex Segregation of Occupations for which Vocational Education Programs Train Students

The growth in the labor force as a whole from 1950 to 1976 has been 52%--with the growth in the female labor force during the same time being over 100%. Women formed 29.6% of the labor force in 1950, but had grown to 40.5 by 1977. While the labor force participation rate for women has been steadily increasing, the rate for men has been steadily decreasing. A review of the simple percentages of women workers in each of the standard job classifications shows a continuance of the basic traditional patterns. For example, in 1960 women comprised 97.1% of all secretaries, in 1970 97.6%, and in 1977 99.1%. At the same time, in 1960 women comprised 0.4% of all carpenters, in 1970 1.3%, and in 1977 0.9%. These figures appear to show an increase in segregation, particularly between 1970 and 1977, and in fact for some occupations this is the case.

The issue is complicated, however, by the tremendous growth in females in the labor force. For while in 1960 the labor force was 32.8% female, by 1970 it had become 37.7% female. By 1977, 40.5% of all workers were women. One would expect, then, that all occupations would have become more heavily female--both traditionally female occupations and traditionally male occupations. Therefore a more useful analysis compares the participation of women in a job category with their participation in the labor force as a whole. Analyzing the labor market in this manner, the following patterns emerge in the various job categories.

Professional, technical and kindred workers. Women form just about the same percentage of this large category as they do of the labor force as a whole. By detailed occupation, of course, the sex distribution varies dramatically. In two technical fields--health technologists and technicians, and engineering and science technicians, there has been a progressive decrease in sex segregation.

Sales workers. Women form about the same percentage of sales workers as they do of the labor force. Women maintain their predominance in the field of retail sales clerks, while the fields of sales representative and wholesale trade remain heavily male. However these two fields have seen an increase in female employment in excess of the increase in the labor force as a whole.

Clerical and kindred workers. Clerical work remains a female stronghold, with approximately twice the percentage of women workers as the labor force as a whole; however, the concentration has not increased. There was some variation from job to job however. The percentage of female bank tellers increased between 1960 and 1970, then decreased slightly in 1977. For bookkeepers the percentage fell from 1960 to 1970 and rose again in 1977. The percentage of female file clerks saw a steady drop from 1960 to 1977.

Craft and kindred workers. The representation of women in craft jobs grew faster than their participation in the labor force between 1960 and 1970, but more slowly between 1970 and 1977. For the broad category, 3.1% of craft workers were women in 1960, 5.0% in 1970, and 5.0% in 1977. For carpenters, painters, machinists, and mechanics the percentage of women compared to the percentages in the labor force as a whole rose between 1960 and 1970 but fell in 1977. A steady increase in the proportion of women occurred in the fields of blue collar supervisor, tailor, telephone installer, and baker from 1960 to 1977.

Operative, except transport. In this category the percentage of females has decreased slightly but stayed approximately proportionate to the percentage of females in the labor force as a whole. Some of the female-intensive occupations in this category, such as clothing ironers and sewers and stitchers, remain heavily female. Some heavily male jobs, such as meat cutters and butchers, have seen growth in the female percentage greater than the rise of women's participation in the labor force. Slight increases in female workers have occurred in the fields of welders and flame cutters.

Transport equipment operative. This category has seen an increase in female participation substantially in excess of overall growth in the female labor force. However, women still form only a small percentage of all workers in this field (6.8% in 1977). The growth is accounted for largely by the job of bus driver. Substantial growth has also occurred in the category of taxicab drivers and chauffers. The job of truck driver shows a pattern similar to that seen in some of the skilled craft jobs. The percentage of women rose between 1960 and 1970, but declined in 1977, reflecting an absolute decline in the percentage females from 1.5% in 1970 to 1.3% in 1977.

Nonfarm laborers. There have been slight increases in female employment in this area. There was a substantial rise for gardeners and groundskeepers from 1960 to 1977, while animal caretakers saw a decline from 1960 to 1970, followed by a rise in 1977.

Service workers. While in 1977 service work still accounted for more working women than any other field except clerical, the proportion of women had declined slightly. This pattern appeared for food service workers and health service workers. The general category of personal service workers saw a general rise. However, the sub-categories of hairdresser and cosmetologist, and housekeepers, saw a decline. There was an increase in the percentage of women in protective service jobs (police, fire, security guards) substantially greater than the overall growth in female participation in the labor force.

To summarize, the data show a strong increase over time in the participation of women in the labor force. The overall distribution of women among job categories, however, remained basically the same in 1977 as it was in 1960. Women are still heavily concentrated in traditionally female jobs such as secretary (99.9% female in 1977) and waiter/waitress (90.4% female in 1977), and form only a small percentage of workers in traditionally male jobs such as plumbers (0.5% female in 1977) and automobile mechanics (0.9% female in 1977). There has, however, been a decrease in sex segregation in a number of jobs for which vocational education trains students. For example, there have been gains in female participation in jobs such as protective service workers and bus drivers far in excess of the increase in women's participation in the labor force as a whole. Nevertheless, on balance occupations clearly continue to be differentiated by sex.

Wages of Males and Females in the Labor Force

Data have been collected by the U.S. Department of Commerce, Bureau of the Census, which compare the median earnings of full-time, year-round male and female workers. These data show that women's median earnings as a percent of men's were 63.9% in 1955, and have dropped steadily, with only slight fluctuations, to 59.4% in 1970. This varies somewhat by specific occupation. Generally, women who work in fields in which women predominate earn less than women who work in fields where men predominate. Minority males earn less than white males, but more than white or minority females. Minority females earn slightly less than white females, but the gap is not as great as it is among the males. Thus these data indicate that little progress has been made.

Objectives 3. IDENTIFY AND ANALYZE THE VARIOUS PRACTICES AND ACTIVITIES AT THE STATE AND LOCAL LEVELS WHICH MAY FACILITATE OR HINDER EQUAL OPPORTUNITIES FOR BOTH SEXES TO HAVE EQUAL ACCESS TO AND PREPARATION FOR A BROAD RANGE OF OCCUPATIONAL FIELDS.

In addition to collecting information on the presence of discriminatory practices and attitudes, the study assessed how the vocational education community is reacting to discrimination and stereotyping. In other words, is an attempt being made to overcome inequities when and where they exist? Considerable information was collected regarding activities which are being implemented at the state and local levels in an effort to expand equal opportunities and address inequities. Particular attention was paid to the activities listed in the legislation and to the role and responsibilities of the mandated position of state Sex Equity Coordinator. This section will summarize:

- The role and responsibility of the state Sex Equity Coordinators
- State level activity designed to address inequities
- Local level activity designed to address inequities.

The Role and Responsibility of the Sex Equity Coordinator

The following points summarize the major roles and responsibilities of the Sex Equity Coordinators:

- At the time of data collection, 47 states had appointed permanent Sex Equity Coordinators. Two of these coordinators have other duties in addition to implementing sex equity activities. Three states had appointed acting coordinators while searching for a qualified candidate. However, 11 coordinators had held the job for less than four months; and an additional 14 coordinators had been on the job less than seven months. Therefore half the coordinators were very new to the job.

- The major selection criteria for the equity coordinator cited by the state directors were experience in some aspect of vocational education, administrative experience, and the ability to work well with others. Only seven state directors stated they sought a candidate with a strong commitment to sex equity.

- When Sex Equity Coordinators were asked what experience in the areas of sex equity and vocational education they brought to the job, 12 cited no equity experience and 9 no vocational education experience.

- Eighteen coordinators report directly to the State Director of Vocational Education; six report to the assistant director. Sixteen are located further down in the vocational education administrative structure, and ten appear to be located outside the vocational education division.

- Of the activities specified in the legislation, coordinators report they are spending approximately 25% of their time on creating awareness of programs and activities designed to reduce inequities. This is the highest percentage of time reported in any of the specified activities. The coordinators also feel this is the most useful activity for achieving sex equity in their states.

- Thirty-seven states have given the coordinators a budget to administer.

- Thirty-six states are spending the $50,000 set aside for sex equity purposes on the salary of secretarial support staff, in addition to the salary of the coordinator. Twelve states are also spending this money on the salaries of professional assistants to the coordinator. Nine states are spending the $50,000 on all three types of staff.

- Twenty percent of the coordinators report they have experienced no inhibiting factors on the job. The greatest inhibiting factors cited by coordinators who report to the state directors are: too much to do (22.2%), traditional and conservative attitudes of others (16.7%), and delays in beginning the job (16.7%). The greatest inhibiting factors cited by coordinators who report to someone other than the state director are: too much to do, lack of cooperation from staff, general bureaucracy, and lack of power and support (all at 12.5%).

- Eighty-five percent of state personnel (excluding the state director) could describe functions of the sex equity coordinator. Fifteen percent were unable to think of any function of the coordinator, or stated that the coordinator was "getting in their way."

The major caution in interpreting these findings is that half the coordinators had been on the job for such a short time. Thus in many ways it is too early to assess the effectiveness of the sex equity coordinators.

State Level Activity Designed to Address Inequities

In order to examine the level of state activity designed to respond to the legislation and address inequities, Table III.2 is provided. This table reveals that:

- The activities which states are undertaking primarily involve review and analysis of programs, policies, and procedures. Approximately two-thirds of the states are currently implementing such activities.
- Only 32% of the states are currently taking action to correct problems uncovered.
- Sixty-four percent of the state directors report they are currently implementing activities to assist local education agencies, but assistance to "others" (in this case teacher training institutions, employers, and community organizations) is only being implemented by 46%, 22%, and 34% of state directors, respectively.

According to sex equity coordinators, the following percentage of states are implementing these additional more action-oriented activities:

Review of local curriculum materials for sex bias	48%
Sponsorship of programs to make students aware of inequities	38%
Sponsorship of programs to make students aware of or encourage them to enter nontraditional programs	42%
Sponsorship of special job development, placement, or follow-up for nontraditional students	36%
Recruitment of females for state level jobs usually held by males	34%
Recruitment of males for state level jobs usually held by females	26%
Provision of incentives to schools to hire females in traditionally male fields	2%
Provision of incentives to schools to hire males in traditionally female fields	0%

Table III.2

PERCENT OF STATES IMPLEMENTING SPECIFIC PROVISIONS OF THE LEGISLATION: RESPONSES OF STATE DIRECTORS

Activity	Implementing	Intend to implement; not begun	No plans/ Don't know
Gather, analyze, disseminate data on students and employees	66%	28%	6%
Develop and support actions to correct problems discovered above	32%	56%	12%
Gather and disseminate information to create awareness of activities to reduce inequities	92%	0%	8%
Review distribution of grants to assure women's needs are addressed	80%	14%	6%
Review all the state's vocational education programs for sex bias	62%	36%	2%
Monitor the implementation of laws prohibiting discrimination in hiring, firing, promotion	64%	14%	22%
Review and provide recommendations for annual plan regarding overcoming sex inequities	50%	42%	8%
Assist LEAs and others to improve opportunities for women:			
LEAs and community colleges	64%	28%	8%
Teacher training institutions	46%	26%	28%
Employers	22%	32%	46%
Community organizations	34%	36%	30%

Thus in general at the state level there is a much greater effort in terms of review and monitoring than in terms of action to overcome inequities. While the essence of the new legislation requires that programs actively be supported to overcome inequities, the majority of states have yet to respond to this charge.

When correlations were computed between state level and school level activity, there was modest evidence that active states correlate with active schools. However, state level activity is not correlated with the proportion of nontraditional male and female students in the state. While it is perhaps too early to see an increase in nontraditional enrollment as a result of state level activity, it is one very clear standard by which success can be measured.

Local Level Activity Designed to Address Inequities

A pattern similar to that at the state level emerges when activity at local education agencies is examined. That is, local directors report the greatest activity to be review and monitoring of activities rather than student or community oriented activities. Table III.3 shows the percent of local directors who are implementing various activities.

Sixty percent of the LEA directors indicated they were implementing at least one type of activity to meet the needs of older women returning to school. The percent of LEAs implementing specific activities of this nature are presented below:

Activity to Meet the Needs of Older Women	Percent of LEAs Implementing
Provide special re-entry programs	36.5%
Provide remedial programs for women lacking background to enter traditionally male fields	26.1%
Provide evening classes for women who work during the day	43.8%
Provide special counseling for re-entry women	27.1%
Provide financial assistance for re-entry women	22.9%

Approximately 59% of LEA directors indicated their LEA was implementing at least one activity to meet the needs of minority students. The percent of LEAs implementing the following activities is:

Table III.3

LOCAL EDUCATION AGENCY ACTIONS TO ELIMINATE INEQUITIES: RESPONSES OF LOCAL DIRECTORS

Activity	Percent Implementing
Gather, analyze, disseminate data on students and employees	50.0%
Gather and disseminate information to create awareness of programs to reduce inequities	33.5%
Monitor the implementation of laws prohibiting discrimination in staff hiring, firing, promoting	68.6%
Review funding practices to assure guidelines regarding sex equity are carried out	63.5%
Sponsor research and evaluation activities related to sex equity	26.6%
Sponsor programs to make students aware of inequities	29.4%
Sponsor programs to make students aware of or encourage them to enter nontraditional programs	37.5%
Sponsor special job development, placement, or follow-up for nontraditional students	24.2%
Make special guidance and counseling available to nontraditional students	26.6%
Make day-care services available to children of vocational students	23.8%
Sponsor programs for employers or community organizations to alert them to the problems of inequity	20.8%

Activity to Meet the Needs of Minority Students	Percent of LEAs Implementing
Special counselor training and/or counseling approaches	14.6%
Cultural awareness programs for staff	34.4%
Native language examinations	15.6%
Special programs to place minority women	9.4%
Provision of English-as-a-Second Language and other linguistic support services	33.3%
Special programs to attract minority women	17.7%
Special career awareness activities for minority group members	22.9%

For these activities, regional differences favor the West and South.

In sum, approximately two-thirds of LEAs are involved in some review and monitoring activities, but in general no more than one-third are sponsoring or conducting specific activities aimed at fostering greater sex equity.

Objective 4. IDENTIFY AND ANALYZE THE VARIOUS PRACTICES AND ACTIVITIES, INTERNAL TO SCHOOL LEVEL VOCATIONAL PROGRAMS, WHICH FACILITATE OR HINDER EQUAL OPPORTUNITY FOR MALES AND FEMALES.

In addressing this objective, the following topics will be discussed:

- School level activity designed to address inequities
- Perceived constraints to achieving sex equity
- Factors influencing student choice of a occupational training program
- Characteristics of traditional and nontraditional students

School Level Activity Designed to Address Inequities

Table III.4 shows how many staff say their schools are taking various actions. The following facts emerge:

- Approximately 50% of staff say their schools are engaged in review activities
- In general, only 10% to 20% of staff say their schools are implementing activities directly involving students.

Table III.4

SCHOOL ACTIONS TO ELIMINATE INEQUITIES

Type of Activity	School Staff Saying Such an Activity Is Implemented
General equity-related activities:	
1. Programs to alert students to inequities	20.8%
2. Programs to encourage nontraditional enrollment	29.5%
3. Special job development, placement, or follow-up programs for nontraditional students	24.0%
4. Special guidance and counseling services for nontraditional students	25.9%
5. Awareness programs for employers or community organizations	13.5%
6. Day-care services for children of students	13.6%
7. Review of student admission policies for equity	54.3%
8. Review of student recruitment policies for equity	50.8%
9. Title IX self-evaluation	47.3%
10. Invitations to report instances of inequities	42.4%
11. Review of curriculum and teaching materials for bias	41.0%
Activities to meet the needs of minority students:	
12. Special training for counselors	13.5%
13. Cultural awareness programs for staff	24.2%
14. Examinations provided in native language	8.7%
15. Special placement services for minority women	10.8%
16. English-as-a-Second Language or other linguistic support	20.7%
17. Programs to attract minority women	10.8%
18. Career awareness program	20.3%
Activities to meet the needs of older women returning to school:	
19. Re-entry programs	14.5%
20. Remedial programs to equip women to enter male fields	16.1%
21. Evening classes	31.1%
22. Special counseling	14.0%
23. Financial assistance	10.7%

Additional data reveal that:

- Over 75% of students are attending schools where staff are not really sure whether the school is doing anything formally to make students aware of or encourage them to enter nontraditional programs.
- Over 60% of students are in schools where there is a similar lack of staff information concerning programs to make students aware of potential inequities.

Thus there appears to be little activity at the school level to foster equity--particularly student-oriented activity. The data upon which the above table was based, together with other information collected during the study, were used to develop several "activity indexes." These indexes were then correlated with the proportion of nontraditional students in school. While the level of school activity overall is low, the following important finding emerged:

- There is clear evidence that those schools putting the most effort into various kinds of activities to further equity are also those experiencing the greatest amount of nontraditional enrollment.

Perceived Constraints to Achieving Sex Equity

Each staff member interviewed was given the opportunity to indicate what she or he felt to be the most important factor working against sex equity in vocational education. The first constraint mentioned by each respondent was recorded and classified into one of four categories; the respondent was then asked specifically whether and what constraints existed in the other categories. The frequency with which a constraint in each of the major categories was the first mentioned is:

Constraints in:	State Staff	District Staff	School Staff
Vocational education	21.4%	19.2%	12.1%
Education outside of vocational education	8.5%	2.1%	5.0%
Employer attitudes or actions	11.8%	17.8%	21.0%
Community attitudes or values	51.6%	50.7%	48.1%

Clearly then, the great majority of vocational educators feel the major constraints to sex equity lie outside vocational education. Vocational educators may be able to exert a certain amount of influence over some of them, but the bulk of constraints of primary importance are seen to be outside of the domain in which vocational educators have a primary influence.

The figures below reflect the frequency with which various kinds of constraints were mentioned as occurring within vocational education and the education system in general. Recall that these constraints may either have been mentioned as the primary constraint or in response to subsequent probing.

	State Staff	District Staff	School Staff
Constraints within Vocational Education			
Teacher attitudes/lack of awareness	39.1%	29.3%	13.0%
Administrator attitudes/lack of awareness	30.7%	19.7%	9.1%
Student attitudes/lack of awareness	17.6%	21.1%	16.9%
Lack of appropriate facilities	3.4%	2.1%	1.8%
Constraints within General Education			
Counselor attitudes/lack of awareness	19.7%	14.3%	7.5%
Teacher attitudes/lack of awareness	11.0%	6.1%	2.8%
Pervasive stereotyping in education	18.5%	8.2%	8.9%

To summarize:

- Vocational educators at all levels feel that constraints outside the educational system present the greatest barriers to sex equity.
- When staff are probed for examples of constraints within vocational education, state staff are more likely to mention a constraint related to teachers, administrators, or students than are district staff. The latter are, in turn, more likely to mention constraints related to teachers or administrators than are school staff. In other words, the closer the staff member to the "scene of action" the less likely that that person will mention administrators, teachers, or students as a source of constraints.

Factors Influencing Student Choice of an Occupational Training Program

The following factors relate to student choice of a training program:

- Slightly over half of the students indicated that they learned of their vocational programs through a school program or from a school staff member. (Together, parents and friends were mentioned by about 30% of the students.)
- While the majority of students claim to have the primary influence over their own occupational choices, the school compares favorably with family and friends among the remainder. A family member was mentioned as having primary influence by about 15% of the men, and

17% of the women. School staff were mentioned by about 12% of the former and 11% of the latter, while friends were mentioned by about 5% of each. How many of the over 60% who claimed to make their own decisions had these decisions critically influenced by the family or the school in ways unrecognized is, of course, impossible to say, but the number is probably substantial.

- Counselors report a variety of methods to inform students of training opportunities. About 75% of counselors say that student preference is the primary basis for making curriculum recommendations; approximately 25% also report student records (grades, etc.) as the major factor.
- Counselors report no uniform system for filling limited openings. Thirty-seven percent report a first-come, first-served basis, 21% cite previous achievement, and 10% cite seriousness of intent or interest.
- Thirty-eight percent of vocational school counselors report they employ special techniques to attract nontraditional students. Female counselors were somewhat more likely to report such activities than their male counterparts.
- Nontraditional students tend to be more knowledgeable about programs to encourage nontraditional enrollment. This indicates that such programs are having the desired effect; however, only about 25% of students are in schools where the staff consensus is that such a program exists.

The data related to discouragement of nontraditional choices were presented earlier. Information on encouragement of nontraditional choices was also collected. The percentages of males and females enrolled in traditionally male, female, and mixed programs who were encouraged by school personnel, parents, and friends are presented below (weighted data):

	Encouraged by:				
Women enrolled in ...	Counselors	Teachers	Mothers	Fathers	Friends
Traditionally male programs	8.7%	7.5%	9.1%	12.6%	14.6%
Traditionally mixed programs	5.4%	5.4%	3.5%	3.0%	8.4%
Traditionally female programs	3.7%	4.4%	4.4%	3.3%	6.6%
Men enrolled in ...					
Traditionally male programs	3.4%	3.8%	2.3%	1.3%	5.2%
Traditionally mixed programs	5.9%	6.9%	3.3%	2.1%	5.0%
Traditionally female programs	10.5%	11.5%	9.6%	1.9%	7.7%

While these percentages are generally quite small they are larger than the percentages shown for discouragement of nontraditional choices. Nontraditional students report more such encouragement than traditional students.

Characteristics of Traditional and Nontraditional Students

Traditional and nontraditional students were compared on a number of characteristics. The more salient results are as follows:

- Age. Traditional and nontraditional students were compared overall and separately for men and women within each type of school. In all but one comparison, traditional and nontraditional students differed by an average of less than two years. The one exception was among men enrolled in technical institutes where the traditional students were about 3½ years older than their nontraditional counterparts. This difference was not reliable at even the .10 level, however. In sum, no noteworthy age differences were discovered between traditional and nontraditional students in the sample.

- Socioeconomic status as measured by occupational level of parents. There was essentially no difference between traditional and nontraditional students on this measure. There is slight evidence that nontraditional males have mothers with slightly higher SES.

- Plans for the future. Overall, nontraditional students appear to be more ambivalent about their plans for the future. Traditional students are more likely to plan to enter the field for which they are training. When asked to select the most desirable occupation from among a list of occupations, over 85% of men and about 50% of women enrolled in traditionally male occupations picked a traditionally male occupation. Likewise, over 80% of the women enrolled in traditionally female occupations chose a traditionally female occupation as a first choice, as did about half the men.

There was no efficient way to collect attrition data in the present study but perceptions of attrition rates for traditional and nontraditional students were gathered. In general the perceptions of attrition rates are mixed. About half of vocational school counselors feel attrition rates are the same for traditional and nontraditional students. The remainder are about equally split between those who feel nontraditionals drop out more and those who feel they drop out less. School staff feel that nontraditional students are well accepted by their fellow students.

Objective 5. IDENTIFY AND ANALYZE THE SCHOOL PROGRAMS AND PRACTICES WHICH APPEAR TO BE SUCCESSFUL IN REDUCING OR ELIMINATING SEX DISCRIMINATION AND STEREOTYPING AND PROVIDING EQUAL ACCESS TO ALL STUDENTS TO A WIDE RANGE OF TRAINING OPPORTUNITIES AND JOBS. CASE STUDIES OF SUCH PROGRAMS SHOULD BE DEVELOPED.

In this section, the results of the search for successful programs will be described. It contains a synthesis of Volume III of this Final Report, which describes case studies and promising approaches for achieving sex equity in vocational education. Additional state, local, and school level practices which appear to be successful are described under objectives two and three of this chapter. This section briefly describes:

- The search for succcessful programs
- Characteristics of the selected programs
- Guidelines for replication

The Search for Successful Programs

A nationwide search was conducted in order to identify vocational programs that are reducing sex inequities. The search employed three basic techniques: (a) we contacted experts in the field, including our advisory panelists; (b) surveyed the relevant literature; and (c) during the data collection phase of the study we asked many of those we interviewed if they were aware of vocational programs with a nontraditional focus. This search uncovered 100 promising programs, 36 of which passed the following initial screening criteria:

- The program is currently in operation
- The program is targeted for secondary or postsecondary populations
- Information is available that documents the program outcomes
- The program focuses on reducing sex inequities
- The program is suitable for replication elsewhere.

Twelve of these programs were described in case studies and twelve were described briefly as promising approaches. The twelve case study programs and the special features of each are described in Table III.5.

Characteristics of the Selected Programs

The programs can be described in the following ways:

- The basic types of activities in these programs involve expanding awareness of opportunities, job readiness skills, exploration, vocational skill training, and staff development.

- Three of the programs are targeted specifically for the secondary level, eight for the postsecondary level, and one for both levels.

- Half are designed specifically for women, and half for both males and females.

Table III.5

TITLE, LOCATION, AND SPECIAL FEATURES OF CASE STUDY PROGRAMS

ADVOCATES FOR WOMEN Hayward, CA	Nontraditional training using existing area facilities; stipends for participants
NEW VIEW Mountain View, CA	College credit classes; paid internships in technical fields
AREA VOCATIONAL PROGRAM Adams County, CO.	GED and ESL instruction; uses facilities of 4 school districts; job development; focus on nontraditional training for women
WENDI Cocoa, FL.	Career planning; prepares women for re-entry or entry into job market
PROJECT MOVE Ithaca, NY	Inservice training for teams of secondary staff; graduate credits for 2 semester courses
ELI WHITNEY VOCATIONAL HIGH Brooklyn, NY	Hands-on experiences in all vocational areas for all freshmen students
NEW PIONEERS Raleigh, NC	Statewide training of vocational administrators, instructors, and counselors in sex equity
WORK OPTIONS FOR WOMEN Raleigh, NC	Nontraditional skills training at 5 community colleges; stipends paid; 6 months on-the-job training
INDUSTRIAL ORIENTATION Eugene, OR	Hands-on experiences in 8 nontraditional vocational areas; career planning and counseling
FACET/FACIT Charleston, SC	Recruitment of high school students for special summer program; technical training for participants
NONTRADITIONAL JOB OPPORTUNITIES Longview, WA	Skill training with cooperative links to area industries; high placement rate
WOMEN'S DEVELOPMENT CENTER Pewaukee, WI	Resource center; individual and group counseling; career planning workshops

- Special target populations served include low income individuals, ethnic minorities, and older women returning to school.
- Three programs take place in urban settings, five in suburban settings, two are located in rural areas, and two are statewide efforts.
- The programs are funded by a variety of sources including vocational education funds from the state board and local districts, CETA, career education funds, private foundations and industry

Of the 12 case study programs, 10 have some state or local vocational education funding; 5 have CETA funding, 1 has career education funds, and 2 have private foundation or industry funds.

Guidelines for Replication

The case study programs have developed to meet needs in their own settings and they represent a variety of approaches for fostering greater sex equity. However, all of the programs have features in common and it is these features which appear to be important to successful replication. Briefly, the approaches which seem key to success are as follows:

- Establish liaison with employers. The developers of virturally all the case study programs felt that this was of primary importance. Since employers hold the ultimate key to the success of any training, it is vitally important to gain their cooperation and support of the program. Several methods for doing this are described in the case studies.
- Provide a thorough orientation to the program. It appears to be essential for program participants to have a clear idea of what the program itself entails and a realistic picture of the job market they will enter. Such orientation allows programs to work with participants who are motivated and serious about the training they are to receive. Because this is such an important consideration, the entire content of several programs was designed to provide an orientation to nontraditional career options.
- Obtain full support from and integration with the host agency. This recommendation applies particularly to programs hosted in community colleges. Developers felt the programs must be perceived as completely integrated into the structure of the college rather than as an "add-on" feature. This gives the program more visibility and clout with the community at large and potential participants in particular.
- Provide necessary support services to participants. Many programs felt that a key ingredient of their success came from offering supportive counseling services to clients. Individuals enrolled in nontraditional programs may need additional encouragement and support when

striking out on an untraveled path. Re-entry women also often encounter family problems and other pressures associated with returning to school or the labor market. All programs emphasized the value of making use of existing services rather than duplicating efforts.

- Carefully plan and evaluate the program. A successful program must have a clear idea of what it hopes to achieve, and a way of measuring whether it is achieving it. Evaluation results provide the necessary feedback for making improvements. Following up participants once they have left the program was frequently mentioned as the most useful source of evaluation data.

- Hire competent, dedicated staff. This is obvious but vitally important. The particular qualities of staff which appear to be important for equity programs are:
    - A genuine commitment to sex equity
    - Knowledge of the labor force, particularly in the local area
    - An ability to serve as a role model for participants. Staff must understand that lack of experience or knowledge can be corrected through learning, and they must be willing to provide support to participants.

An essential feature of all the programs which were identified was a realization that simply stating that all occupational training areas are open to both sexes is not enough. More exposure of programs and support of nontraditional enrollees are needed for things to be truly equal. Successful programs are designed to provide this exposure and support. Readers are encouraged to look at the case study volume for more complete information on the common features which appear to lead to success as well as more in-depth information on the programs themselves.

Objective 6. IDENTIFY AND ANALYZE FACTORS EXTERNAL TO THE SCHOOL WHICH INHIBIT SEX EQUITY, SUCH AS RELUCTANCE OF EMPLOYERS OR UNIONS TO ACCEPT WOMEN FOR CERTAIN JOBS OR APPRENTICESHIP PROGRAMS, AND ANALYZE HOW SCHOOLS ARE DEALING WITH SUCH FACTORS.

Although the focus of this study has been on inequities in vocational education and the efforts of vocational educators to overcome them, it must be clearly understood that vocational education operates within the context of the community. The literature discusses a wide variety of factors which bear on the problems of sex inequity, and certainly not all of these factors are totally influenced or controlled by schools. However, what vocational educators perceive these factors to be, and how they are attempting to deal with them is important. This is the focus of the following discussion. It is presented in the following sub-sections:

- External constraints to equity in vocational education
- How schools are dealing with external factors

External Constraints to Equity in Vocational Education

When vocational educators were asked for their perceptions of the greatest constraints to sex equity in vocational education, the overwhelming response was that constraints emanating from the values and conservative attitudes in the community are the greatest inhibitors. The percent of state, district, and school level staff who first mentioned the constraint categories listed below is as follows:

	State Staff	District Staff	School Staff
Constraints imposed by attitudes and values in the community	51.6%	50.7%	48.1%
Constraints resulting from employer attitudes and actions	11.8%	17.8%	21.0%
Constraints within vocational education	21.4%	19.2%	12.1%
Constraints outside vocational education but within general education	8.5%	2.1%	5.0%

Thus staff at all levels tend to think that external factors resulting from attitudes and values in the community present the major roadblocks to equity. School staff feel that constraints resulting from employer attitudes and actions present the next greatest problem; state and district staff point to constraints within vocational education and then to constraints emanating from employers. In general, all levels of vocational staff, and particularly school staff, feel that external factors do inhibit equity efforts.

A more in-depth examination of community and employer constraints points to the following factors within these two areas.

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	State Staff	District Staff	School Staff
Constraints imposed by attitudes and values in the community			
Fear of and resistence to change	3.4%	2.0%	1.0%
Parental attitudes and influence	28.1%	30.6%	12.8%
Pervasive conservative attitudes in the community	70.7%	62.6%	68.4%
Other	.7%	.7%	.1%
Constraints resulting from employer attitudes and actions			
Lack of job openings	2.7%	5.4%	.6%
Employer attitudes	58.4%	54.4%	57.2%
Lack of support once on the job	3.9%	1.4%	2.7%
Other	3.9%	2.0%	1.4%

Within these two categories, respondents clearly feel that conservative attitudes on the part of people in general and employers and parents in particular constitute the greatest constraints to equity.

Other data collected in the study also indicate that vocational educators feel equity efforts are thwarted, or at least influenced, by external factors. In general, vocational education students and staff feel that opportunities in the labor force are not equal, and that employers are unwilling to hire nontraditional workers. The following findings indicate this:

- Both teachers and counselors feel that only half of all employers are willing to hire nontraditional workers.
- Over half of all students (58%) feel that employers are generally unwilling to hire nontraditional males, and two-thirds (67%) feel employers are unwilling to hire nontraditional females.
- Instructors feel that men and women "probably do" have equal opportunities to obtain good, well-paying jobs, while counselors feel they "probably do not."
- Where opportunities are perceived to be unequal, instructors and counselors see the direction of bias overwhelmingly in favor of men.

In contrast to these findings, approximately 61% of students are either "not sure" or feel that sex discrimination in the labor force is "only a minor problem," while 16% say it is "not a problem." Contrastingly, 23% see it as a "serious problem." It is noteworthy that those students who are most likely to perceive sex discrimination in the labor force are older. It is possible to surmise that these older students have in fact had experience in the labor force and thus have more information on which to base their opinions.

How Schools are Dealing with External Factors

The data show that there is little activity in terms of employer and community liaison efforts in order to foster greater sex equity. The following findings indicate this:

- The lowest mean level activity reported by state directors was for activities to assist employers to improve opportunities for women. In general state directors indicated they plan to work with employers to foster equity, but have not started. However, 15 of the states have no plans at all to do this. Only one-fifth of the states have already implemented employer liaison activities to improve opportunities for women.

- A third of the state directors report that their states have begun implementation or have fully implemented community liaison activities to improve opportunities for women.

- According to LEA directors and directors of counseling, only one-fifth to one-fourth of the LEAs have implemented community liaison activities and over half of the LEA directors report there are no plans to do so.

- According to instructors and counselors, only 13% of the vocational schools have begun or completed implementation of employer or community liaison activities.

Thus very few states, LEAs or schools are engaged in community and employer liaison activities. Yet this type of activity--particularly with employers--seems to be a critical ingredient in the success of efforts to foster greater equity. The directors of virtually all of the case study programs indicated that employer liaison activities were essential to the success of their programs.

In summary, while vocational educators see community factors and the reluctance of employers to hire nontraditional workers as major constraints to equity efforts, they are not generally engaged in significant liaison efforts to deal with these factors. The data from this study suggest that this type of activity can be a very effective technique for achieving equity in vocational education.

Objective 7. DEVELOP CRITERIA BY WHICH FEDERAL, STATE, AND LOCAL ADMINISTRATORS CAN MEASURE PROGRESS IN REDUCING SEX DISCRIMINATION AND STEREOTYPING

The criteria contained on the following pages are designed to assist others in determining whether education programs or systems are truly open and equitable to both sexes. These criteria have been developed during this study. It is hoped they will be useful to federal, state, and local administrators. The discussion will fall under three general headings:

- Preliminary remarks on useful approaches
- Criteria for investigating discrimination and efforts being made to overcome it
- Criteria for assessing efforts being made to overcome sex stereotyping

Preliminary Remarks on Useful Approaches

Assessing progress necessarily suggests some sort of a standard against which to measure change. In this case some standards are obvious--nontraditional enrollment, for example--but such obvious measures are not always easy to come by, nor may they be entirely satisfactory. Consider the teaching staff at a school in which there is very slow turnover and which is not expanding. Chances are that the staff will be highly traditional, with men teaching courses like auto body and women teaching courses like home economics, a situation that will not have changed much in many years. Such a school may well have exerted itself to assure equitable treatment of staff, but the efforts could not really be expected to manifest themselves quickly in changed staffing patterns. Thus all standards must be used intelligently and thoughtfully. With this proviso, the following are some suggestions about measures that might be used to assess progress in reducing sex discrimination and stereotyping.

Enrollment, staff makeup, and other "hard" data covering several years. Notwithstanding that they are not always totally satisfactory, data on the number and proportion of men and women teaching or studying nontraditional occupations are useful. Other hard data that may be useful are:

- Salaries -- Do approximately equally qualified men and women earn the same amount for equivalent work? Do male and female work/study or cooperative education students earn equal amounts for like work? Do they have an equal chance at the more lucrative slots?

- Advancement -- Are persons of one sex advanced from the ranks with disproportionate frequency? Are student leadership roles, particularly those which staff have a hand in selecting, disproportionately filled by members of one sex?

- "Housekeeping" Roles -- Do committee assignments fall with disproportionate frequency on members of one sex when this is not justified by expertise? Are a disproportionate number of men or women chosen as classroom assistants?

- Documented Formal Procedures -- Do rules and regulations assign male and female staff and students to different roles, or strongly suggest that different roles are appropriate? Are there formal guidelines designed to counteract or prevent inequities and, if so, when did they go into effect and how have they changed over the years? Have collective bargaining agreements included provisions related to sex equity? Have grievance procedures recognized matters related to sex inequities?

- Reviews -- Have procedures been reviewed for sex fairness, for example, because of Title IX? When? What were the findings? Were changes made as a result? Is someone responsible for periodic reviews and, if so, what kind of power does that person enjoy?

- Documentation Concerning Specific Efforts to Encourage Equity -- Is there evidence of specific activities ranging from workshops sponsored by the State Educational Agency, to exploratory courses to introduce students to nontraditional occupations, to funding projects designed to lessen inequities.

"Hard" Data on Short-Term Outcomes. There are many kinds of awareness activities, attitude change activities, curriculum and policy review procedures and the like that an educational agency might undertake. Many possible outcomes of such efforts lend themselves to empirical investigation without creating undue burdens.

- Questionnaires and Tests -- Many activities, from faculty meetings, to workshops, to publications, are meant to convey information related to sex equity of one kind or another--"how to spot sex bias in your classroom," "the facts about how many women work and what they earn," "how to overcome employer reluctance to hire the nontraditional graduate," "how to set up an attitude change workshop," "what the new state policy on sex equity means to you," and so on. Various kinds of pre/post examinations, role playing performances, and like measures can be used to see how well short term activities have worked in getting information across.

- "Unobtrusive" Measures -- You can count events. Do students inquire more frequently about nontraditional courses of study? Is the Sex Equity Coordinator more routinely consulted by occupational area specialists? Are more building principals setting up workshops for staff? Are sexist remarks less frequent in the lunchroom? Are pro-equity activities increasing and inequitable practices decreasing in the classroom?

Informal Comparisons with the Past. Emphasis on sex equity has grown dramatically in the last few years. If one can document the existence of workshops, materials reviews, and other activities to encourage sex equity which were undertaken rarely, if at all, until recent years, then that is evidence that something is being done.

In sum, there are a wide variety of approaches, from the rigorous to the informal, that can be used to assess progress--or lack of it--in achieving sex equity. In using them, it is important to distringuish between bona fide change and the simple existence of efforts. For example, it is necessary not merely to count how many workshops there were, but to determine what effect they have had on enrollment, inquiries, attitudes, or some other measure indicative of change.

Criteria for Investigating Discrimination and Efforts Being Made to Overcome It

Three categories will be used in discussing criteria for investigating discrimination and efforts being made to overcome it: conformity to laws, regulations, and policies; objective data on the status of men and women; and efforts to eliminate discrimination beyond those specifically required by law.

Conformity to laws, regulations, and policies. Since laws, regulations, and policies are changeable, we will not undertake to discuss criteria for each specific current requirement. Rather, we will look at categories into which requirements fall and into which they are likely to fall in the future. In reviewing such conformity it is critical, as just discussed, to distinguish between real progress and paper conformity.

- Have such topics as required by law been included in the State Plan, district funding requests, and the like?
- Have such staff as may be required in the law been hired? Are their assigned duties those stipulated in the law or associated regulations? Are such resources as required by law available to them?
- Have such data collection and reporting requirements as may be required by law been undertaken?
- Are Advisory Councils and other associated groups constituted as required by law? Do they undertake the activities stipulated for them?

- Have all mandated activities, such as programs for staff and students, reviews of programs for sex fairness, and liaison with groups outside of vocational education been undertaken?

- Have affirmative action and like procedures to assure equitable treatment of male and female staff and students been implemented?

- Is each of the above for which a timeline has been specified on schedule? If not, has provision been made to catch up?

- Have instances of discrimination been identified in undertaking any of the above? If so, have they been rectified? If not, have steps in the direction of rectification been taken? Have steps been taken to preclude similar occurrences in the future?

- Have procedures been developed and responsibilities assigned to monitor the success of activities to identify and eliminate discrimination? Have these procedures been carried out as planned? Is there evidence from this monitoring as to the success of these activities? Are procedures being planned or undertaken to remedy any deficiencies uncovered?

Objective data on the status of men and women. To a large extent, the data collected in complying with laws and regulations will answer questions under this topic. Here we will suggest some of the topics that might profitably be investigated during data collection.

- Are there rules or quotas that limit or deny student admission to certain programs on the basis of sex? Are there rules or requirements that have this effect even if they were not intended for this purpose?

- Are there regulations or hiring policies that have the effect of making it more difficult to hire a man than a woman for certain positions within vocational education? More difficult to hire a woman than a man?

- Are there policies or procedures that result in male and female students receiving consistently different treatment in obtaining work/study, cooperative education, or job placements?

- Are there variations in procedures used to alert students to training opportunities that have the effect of informing men about one set of opportunities and women about another set?

- Are selection procedures used that have the effect of giving preference at least in part on the basis of the sex of the applicant in picking students to fill a limited number of training program vacancies. What reasons are given when students are, as will sometimes happen, denied admission to their first choice for training? Do such refusals fall proportionately on would-be traditional and nontraditional students?

- Are there policies or practices that have the effect of making it more likely that persons of one of the sexes will be selected to fill certain leadership positions?

- Are there features of the salary or benefits policies or procedures that have the effect of providing differential compensation to men and women who are essentially equally qualified?

- Are there procedures and lines of authority for eliminating any discriminatory practices that affect staff or students? Are procedures actually used in instances where discrimination is identified? When used, have these procedures remedied the situation? Do the actions taken not only remedy existing instances of discrimination, but do they include provision to prevent recurrences of similar discriminatory events?

As implied in the phrasing of many of these questions, the practices or procedures need not be such as to limit outright the opportunities available to members of one of the sexes to be discriminatory. Rules or policies or practices that, however unintentionally, have this effect, can also be considered discriminatory. Thus, in examining programs for discrimination, vocational educators must be concerned as much with the unintended effects of policies and practices as with their intent. Likewise, in assessing progress in eliminating inequities, it is as important to look at the actual effects of changes in policies and practices on the status of men and women as to examine their form and intended effect.

Efforts to eliminate discrimination beyond those specifically required by law. Because of the wide variety of possibilities, and the varying suitability of any one of them for the diverse situations that arise, it is impractical to attempt to specify all of the possible criteria that might indicate that efforts were being made to eliminate discrimination. Some broad categories may be suggested.

- Are resources being committed beyond the minimum amounts required by law?

- Do staff with responsibility for identifying and eliminating discriminatory practices have real power within the system, or do they have relatively minor positions in the organization?

- Are concerted efforts being made to "troubleshoot" areas over which vocational educators have no official control, as opposed to using failings in these areas as a ready source of excuses? For example, it may be that there are very few women qualified to teach in some of the traditionally male trades. Have vocational educators attempted to work with training institutions to prepare greater numbers of qualified women?

- Have determined efforts been made to identify those schools or departments in which discriminatory practices persist and to insist on changes?

There are many possibilities here. The basic question is whether or not there is evidence that those responsible for vocational education programming at the state, district, or school levels have "adopted" the movement to end sex discrimination as their own. And, having done so, have they exerted themselves to ensure that discrimination is in fact eliminated, not merely to assure that their programs are in technical compliance with the law.

Criteria for Assessing Efforts Being Made to Overcome Sex Stereotyping

Because stereotyping involves attitudes and opinions, it is somewhat more difficult to identify and come to grips with than is discrimination. There is also a fine line between removal of all stereotypes and an insistence on a uniformity of belief. Nevertheless, there are a variety of steps vocational educators may take to encourage students to enroll in nontraditional programs, and to increase the likelihood that they will be well received. Some of these are listed below.

Since beliefs and actions are often closely related, it should come as little surprise that many efforts taken to affect one may well affect the other. Thus, there may appear to be overlays between the list that follows and that which preceded. Recall, however, that the former was concerned with actions that more or less overtly limit opportunity. The latter has to do with subtle inequities. Thus, it seems worthwhile to list criteria separately, not only because there are non-overlapping areas, but also because stereotyping is sufficiently important to merit independent attention even when the criteria do apply as well to discrimination.

Funding criteria

- Are funds specifically earmarked for activities to lessen stereotyping?
- Do reviews of funding requests take anti-stereotyping components into consideration?
- Are anti-stereotyping activities among the proposals for which discretionary funds may be used?

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Materials review and development

- Are curriculum and recruitment materials routinely reviewed to be sure that they are not stereotyped? Are actions to remedy the situation taken in the event that stereotyping is found?
- Are publicity materials such as might be made available to the media or to employers reviewed to assure that they are not stereotyped? Are actions taken to eliminate such stereotyping as may be found?
- Are specific materials developed to point out the opportunities available in nontraditional areas? To encourage students to look into nontraditional opportunities? To gain media coverage of nontraditional students or workers?
- Are projects funded to develop nonstereotyped curriculum materials where such are not available? Are efforts made to work cooperatively with publishers of curriculum materials to lessen stereotyping?
- Are materials developed to use at inservice sessions to alert staff to stereotyping and what they can do to overcome it? Is there cooperation with teacher training institutions in development of preservice materials to train prospective teachers to lessen stereotyping?

Student awareness activities

- Are programs sponsored or undertaken directly to make students aware that men and women can fill the same range of jobs?
- Are there programs for students to identify stereotypes they may hold--"women don't need to work," "only an effeminate man would be a nurse," and so on--and to correct these impressions?
- Are programs funded or sponsored to give students a chance to try nontraditional roles? Are classes organized so that both girls and boys take shop and home economics, drafting and typing, and otherwise have equal opportunity to prepare for entry into vocational programs?
- Are efforts undertaken to ensure that those in a position to guide students present options based on student capabilities and interests, not on sex?

Staff awareness activities

- Are efforts undertaken to alert staff to the nature of stereotyping, its effects and manifestations?
- Are training programs offered to help staff deal effectively with stereotyping in working with students or with other staff? In working with employers, parents, or other persons outside of the educational system, but who are critical in any thoroughgoing effort to eliminate stereotypes?

- Are efforts made to inform staff about stereotyping within the vocational education system itself, and to encourage them to take action in their own domains of responsibility to eliminate the stereotyping?

For some agencies, certain of the above will not be suitable. Other agencies may wish to expand or modify many of these criteria. The list does provide some suggested criteria that vocational educators can use in asking themselves "Is this within our domain of responsibility," "Is this something needed here?," "Have we done this thoroughly enough?," and "Are there other criteria we should apply in our efforts to rid our programs of discrimination and steroetyping?"

CONTRACTOR'S RECOMMENDATIONS

The recommendations which can emerge from a study of this size are many. It is our hope that the information and analyses which have been presented will provide the stimulus for action and further research throughout the entire vocational education community. While it is not clear how much responsibility vocational education bears for the inequities which currently exist in the employment and earnings patterns in the United States, it is clear that men and women do not make vocational choices unencumbered by sex. The patterns of enrollment in vocational programs are heavily influenced by sex, as are the patterns of staffing. Furthermore, in the majority of cases, women emerge from vocational education programs with the virtual assurance of earning less income while working in lower prestige jobs. In addition, while the number of nontraditional students has increased in a few areas in recent years, in general there has been little movement toward a more balanced pattern of enrollments in areas traditionally dominated by either men or women. Therefore, it is imperative that continued attention be given to the issue of sex equity in vocational education. The effort must emanate from the federal, state, local, and individual levels.

We would like to make the following key recommendations for the directions in which the equity effort should be focused.

1. A concerted effort must be made to identify and disseminate exemplary programs and strategies for overcoming sex inequities in vocational education.

At present there are few examples of successful efforts to reduce sex inequities in vocational training programs. However, many states and districts appear to be ready to take the risk of setting up and implementing programs and activities if they have sufficient information on what to do and what works. Thus it is of vital importance that information on successful strategies be disseminated to the widest possible vocational education audience. The case studies contained in Volume III of this Final Report are an important step in this direction.

The U.S. Office of Education has established a mechanism for approving programs for dissemination through its Joint Dissemination Review Panel (JDRP). Once passed by the JDRP, programs are eligible for dissemination funds. Program developers should be encouraged to make use of the JDRP, and aided in this effort to collect and supply adequate data and documentation of program procedures and outcomes. The federal government could play an active role in this effort and in helping programs already identified to obtain JDRP approval. Furthermore, it could play an active role in the identification and support of additional exemplary programs.

2. There needs to be considerably more emphasis at all levels on activities designed to overcome inequities, in addition to monitoring and reviewing designed to discover such inequities.

A major theme throughout the legislation is that an active effort to overcome inequities must be made. However, the primary form of activity which was observed in this study consisted of reviewing and monitoring--activities which are quite passive in nature. At best, what can presently be observed is an emerging equity effort. What is lacking is corrective action to overcome inequities discovered through review and monitoring. States, local education agencies, and schools need to be provided both with incentives to act, and with examples of successful approaches. Thus the preceding recommendation is extremely relevant to this one as well. Data from this study revealed that in those schools where an active effort is underway to address inequities, there is a higher proportion of nontraditional students. Concerted efforts, particularly those which directly involve students, are of vital importance in making progress in reducing inequities.

While an increase in nontraditional student enrollments is one clear sign that opportunities within vocational education are more equal, the equity effort must be more than a "numbers game." What is essential is the development of a system which makes it possible for each individual, regardless of sex, to choose freely an area of vocational training, and just as importantly, to be supported once that choice has been made. An active effort on the part of vocational educators will be required in order to establish such a system. Thus, it is the openness of the system itself and not only its end results which must come under scrutiny.

Specific examples of the types of active efforts which are required in order to take corrective action and develop truly open systems are contained throughout the entire report. However, the following types of activities are recapitulated here and strongly recommended:

- Special programs should be developed to acquaint students with, and encourage them to consider, nontraditional career options. The objective is not to coerce and push people into roles they do not desire, but to broaden the range of occupational choices for all individuals.
- Particular attention and assistance should be provided to minority students, particularly women, and to women who have been out of the labor market for a considerable period of time.
- Affirmative action programs for administrative, instructional, and support staff should be initiated to overcome the effects of past discrimination. Furthermore, there must be equality between men and women holding like positions in terms of salaries, responsibilities, and opportunities for advancement.
- Liaison should be established with teacher training institutions to encourage potential nontraditional staff.
- Vocational educators should work with employers and community groups in an effort to foster greater sex equity. This was a key recommendation of virtually every successful program identified in this study.

3. The criteria provided in Objective 7 of this summary should be used by federal, state, and local administrators to assess the openness of vocational education programs.

In a sense, the entire content of Objective 7 is a recommendation. The criteria contained in it were developed by the American Institutes for Research based on the experience of conducting the Vocational Education Equity Study.

The guidelines cited go beyond the examination of enrollment and staffing patterns and blatant discriminatory practices, to point out additional critical areas which must be examined, including more subtle but equally limiting forms of discrimination. Active attention to these criteria will greatly encourage sex equity.

To facilitate the assessment of equity in vocational education, the Replication Handbook, Volume IV, is provided. It can be used as a tool by others in replicating this study or conducting similar smaller studies. The Replication Handbook can serve as a form of technical assistance to those individuals. Thus, in addition to providing recommendations on areas which should be investigated, a mechanism for doing so has been provided.

4. The role and the effectiveness of the Vocational Education Sex Equity Coordinators need to be examined once these individuals have been on the job for sufficient time to have an impact.

At the time of data collection for this study, most Sex Equity Coordinators were very new to their jobs. Thus in a sense their reports of activity could only be reports of what they intended to do. Many were still establishing themselves and their credibility and had yet to implement activities. A further examination will be required in order to determine how effective they are. It will be important to study the activities of these individuals to determine which produce the best results under what circumstances. Since the positioning of the coordinators within the state structure, and the experience they bring to the job, varies considerably by state, it will be important to observe how these factors related to effectiveness. Clearly, the sex equity effort cannot be left to the coordinator alone, but the role of this person will be of vital importance in that effort. In order to make the most of this position, systematic study of the Sex Equity Coordinators' role and effectiveness will be needed.

Appendix A

SOME TECHNICAL ASPECTS OF SAMPLING

A1. Selection of the sample of schools . . . . . . A- 2

A2. Selection of samples of interviewees A-12

Note: Throughout this appendix the terms "population" and "universe," when used in their technical sense, are used interchangeably.

Appendix A.1

SELECTION OF THE SAMPLE OF SCHOOLS

A. Respondent Universe

The respondent universe consisted of the 7,144 vocational schools constituting the universe of vocational schools in the study of vocational education facilities conducted by Westat, Inc. Of the 7,144 schools, only 6,712 provided data for Westat's study, but of the additional schools on Westat's mailer tape 432 were acceptable for inclusion in the universe for the AIR study, thus accounting for the 7,144-school universe.

Although Westat's tape had not been prepared at the time our study started, a thorough investigation of possible sources of a respondent universe convinced us that the Westat tapes would provide the best available list suitable for the purpose. We checked with NCES and with the Office of Education's Bureau of Occupational and Adult Education, and we also explored other possible sources. The search uncovered no list of vocational schools as complete as Westat's was expected to be. Westat's definition of vocational schools included in its respondent universe was as follows:

> "all public secondary and two-year postsecondary institutions having five or more shop/laboratory/classroom facilities in different program areas in vocational-technical education and administered by a public school system or as a free-standing two-year postsecondary education institution or system. Excluded from this study were institutions administered by, or as branch campuses of, institutions of higher education. Two-year postsecondary institutions operated under the aegis of a board of higher education, but not as an adjunct of a higher education institution, are included in the study (i.e., community college systems administered under a state Board of Regents, etc.)."

B. Characteristics Decided upon for the School Sample

1. Probability sample

This feature was essential to minimize systematic error.

2. Sample size

The school sample had to be as large as budgeting constraints would permit. This meant an upper limit of about 100 schools.

3. Stratified sample

Stratification on appropriate variables was considered important to reduce sampling errors (random errors) to a minimum.

4. Differential sampling ratios

It was realized that differential sampling ratios would be necessary in order to insure an adequate number of schools in the sample from some of the categories of the sampling universe that contained relatively few schools. Differential sampling ratios have the disadvantage that they tend to result in larger sampling errors (as shown in Table A1-1), but there are compensating advantages. Furthermore, if the extent to which the ratios differ is kept under control, the increase in sampling error rate can be kept small. As shown in Table A1-2, if the following inequality holds (or comes close to holding) sampling error increases are quite modest:

$$\frac{\sqrt{n \sum_{i=1}^{n} W_i^2}}{\sum_{i=1}^{n} W_i} \leq 1.25 \qquad (1)$$

where n = number of schools in sample
W_i = weight for school i

The reason is that when the inequality indicated by formula 1 holds, the standard error of a mean computed from the sample (using school as the unit of analysis) is no more than 1.25 times as large as the standard error of the mean of a sample of the same size with uniform sampling ratios. This increase in standard error of the mean resulting from the use of differential sampling ratios is no greater than that resulting from the use of medians instead of means for estimating the central tendency of a normally distributed universe.

Another way of saying this is that the ratio of the "effective sample size" to the actual sample size (i.e., the number of schools in the sample, which equals n) is at least $1/\sqrt{1.25}$. Actually the ratio would be considerably larger than that (in other words the "effective sample size" would be even closer to the actual sample size) since the sampling

Table A1-1 "Effective sample size"* for a 2-stratum 1000-case sample with various ways of splitting the population into strata and various combinations of differential sampling ratios**

		n_1 →	1	3	5	10	20	50	100	200	500
		n_2 →	999	997	995	990	980	950	900	800	500
		n →	1000	1000	1000	1000	1000	1000	1000	1000	1000
	W_1/W_2 ↓		MINIMUM EFFECTIVE SAMPLE SIZE***								
A	0.001		999	997	995	990	980	950	900	800	501
B	0.01		999	997	995	990	980	951	902	804	510
C	0.1		999	998	996	992	984	960	919	838	599
D	0.2		999	998	997	994	987	968	936	873	692
E	0.5		1000	999	999	998	995	988	976	953	900
F	1		1000	1000	1000	1000	1000	1000	1000	1000	1000
G	1.5		1000	999	999	998	995	989	980	968	962
H	2		999	997	995	990	982	959	931	900	900
I	2.5		998	993	989	979	960	915	867	824	845
J	3		996	988	981	963	932	864	800	754	800
K	4		991	974	958	923	864	756	676	640	735
L	5		984	955	929	872	788	655	576	559	692
M	10		926	813	730	597	467	353	331	377	599
N	20		742	509	400	284	212	182	206	285	550
O	50		314	155	115	85	77	95	139	233	520
P	100		110	54	44	39	44	71	119	216	510
Q	200		35	21	20	22	31	60	109	208	505
R	500		9	8	10	14	24	54	104	203	502
S	1000		4	5	7	12	22	52	102	202	501

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* Effective sample size (n´) is the number of cases required for a simple random sample having the same standard error of a mean. The formula is:

$$n' = \frac{\left(\sum_{1}^{n} W\right)^2}{\sum_{1}^{n} W^2}$$

** Notation

	Stratum 1	Stratum 2	TOTAL
Population size	N_1	N_2	$N = N_1 + N_2$
Sampling ratio	p_1	p_2	
Sample size	$n_1 = p_1 N_1$	$n_2 = p_2 N_2$	$n = n_1 + n_2$
"Effective sample size"			n'
Weight	$W_1 = \frac{1}{p_1}$	$W_2 = \frac{1}{p_2}$	

*** The values shown in this table are based on the assumptions that the population is infinite and that the "population strata" are in effect random samples of the population. Since the first assumption may not be true and since the second almost certainly will not be, the "effective sample size" values shown in this table should be regarded as lower bounds.

Table A1-2 Range of W_1/W_2 ratios for which the standard error of the mean will be no more than 1.25 times as large as the corresponding standard error for a sample with uniform sampling ratios*

			Range of W_1/W_2 values for which $\sqrt{\frac{n}{n'}} \leq 1.25$**	
n_1	n_2	n	Lower limit	Upper limit (calc.)****
1	999	1000	.00***	25.31
3	997	1000	.00***	15.30
5	995	1000	.00***	12.23
10	990	1000	.00***	9.15
20	980	1000	.00***	7.00
50	950	1000	.00***	5.16
100	900	1000	.00***	4.33
150	850	1000	.00***	4.07
200	800	1000	.00***	4.00
250	750	1000	.00***	4.05
300	700	1000	.00***	4.22
360	640	1000	.00	4.57
400	600	1000	.05	4.95
500	500	1000	.14	7.00

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* The notation in this table is the same as that in Table A1-1, and all the same assumptions apply.

** Within the indicated range of W_1/W_2 values, the standard error of the mean will be no more than 1.25 times as large as the standard error of the mean of a sample of the same size with uniform sampling ratios. This increase in standard error of the mean resulting from the use of differential sampling ratios is no greater than that resulting from the use of medians instead of means for estimating the central tendency of a normally-distributed population.

*** The mathematical root calculated for this value is a negative number. The values of W_1/W_2 shown in these two columns are the roots of a quadratic equation. The formula for the roots is

$$\frac{W_1}{W_2} = \frac{-c^2 n_1 n_2 \pm n\sqrt{n_1 n_2 (c^2 - 1)}}{n_1 c^2 (n_1 - n)}$$

where c is the upper acceptable limit for $\sqrt{n/n'}$. (c = 1.25 in this case).

**** The values in this column are the calculated upper limits, but as indicated in footnote 3 for Table A1-1, the actual upper limit for the acceptable range is probably even higher, since the Table A1-1 assumptions almost certainly will not hold.

universe is finite, not infinite, and since, as indicated in section A above, stratification on relevant variables will tend to reduce sampling error.

5. Inclusion of schools with nontraditional enrollment patterns

The sample was designed in such a way as to insure not only adequate representation of all sections of the country, large and small communities, the various kinds and levels of vocational schools, and schools with traditional enrollment patterns, but also schools in which there is some degree of breaking away from those traditional patterns.

To identify some schools in which there had been some breaking away from traditional enrollment patterns (in terms of the sex of students enrolled in various occupational programs) our source of information was a previous study sponsored by the Office of Education, in which 16 schools were identified that had enrolled at least five females in the same traditionally male occupational program. The earlier study, which is entitled "Attempts to Overcome Sex Stereotyping in Vocational Education," was directed by Jacob J. Kaufman of Pennsylvania State University. (The Office of Education grant number was OEG-0-74-1753.) Of the 16 identified schools, 11 were included in the Kaufman study. Only 8 of these were schools of a type that belonged in our "universe of schools." To insure that all eight would be in our sample without violating the tenets of probability sampling, we formed a separate stratum consisting solely of these eight schools, and sampled the corresponding cell with a sampling ratio of 1, so that the sample and the universe were the same for that cell. This procedure for guaranteeing the inclusion in a probability sample of certain elements of a sampling universe and the rationale underlying it are presented in Appendix A.3 of this report.[*]

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[*] Appendix A.3 consists of a paper presented by one of the authors of the present report, Marion F. Shaycoft, at the American Psychological Association Convention, September 1976.

C. Procedure

1. Preliminary stratification

We decided to obtain a stratified random sample of vocational schools stratifying on the following three variables, with the initial stratification as indicated:

a. Location (first stratification variable)

Nine categories

The 9 geographical regions used by the Bureau of the Census. Their composition is shown in Table A1-3.

b. Kind of schools (second stratification variable)

Five categories

1) Comprehensive high school
2) Vocational high school
3) Vocational center (shared time)
4) Technical institute
5) Community college

c. City size (third stratification variable)

Four initial categories

It was our intention to dichotomize on this variable, using as the population cutting point either 500,000 or 750,000 or 1,000,000, depending on which cutting point would work out best in terms of size of the resulting cells. To obtain information on which to base selection of the point of dichotomization, we started out with 4 categories:

1. Under 500,000
2. 500,000 - 750,000
3. 750,000 - 1,000,000
4. Over 1,000,000

2. Final stratification

The preliminary stratification outlined above would result in 180 cells (9x5x4). A smaller number was essential. As a necessary preliminary to reducing the number of cells, a distribution of all the schools on the Westat master file tape was obtained showing the number of schools in each of the cells. Actually there were 216 cells since a sixth "kind of school" category was needed initially, for schools for which Westat's tape lacked data on school type. Table A1-4 shows the number of schools in the universe in each of the 216 cells. On the basis of these data, the dichotomization point selected for city size was 500,000.

Table A1-3

COMPOSITION OF U.S. CENSUS BUREAU REGIONS

Census Bureau Region	Number of States*	State
NORTHEAST		
1. New England	6	Maine New Hampshire Vermont Massachusetts Rhode Island Connecticut
2. Middle Atlantic	3	New York New Jersey Pennsylvania
NORTH CENTRAL		
3. East North Central	5	Ohio Indiana Illinois Michigan Wisconsin
4. West North Central	7	Minnesota Iowa Missouri North Dakota South Dakota Nebraska Kansas
SOUTH		
5. South Atlantic	9	Delaware Maryland District of Columbia* Virginia West Virginia North Carolina South Carolina Georgia Florida
6. East South Central	4	Kentucky Tennessee Alabama Mississippi
7. West South Central	4	Arkansas Louisiana Oklahoma Texas
WEST		
8. Mountain	8	Montana Idaho Wyoming Colorado New Mexico Arizona Utah Nevada
9. Pacific	5	Washington Oregon California Alaska Hawaii
TOTAL NUMBER	51*	

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*The District of Columbia is here treated as a state.

Table A1-4 Distribution of schools with vocational programs, by kind of school, city size, and Census Bureau region

Kind of school	City Size**	N (= number of schools with vocational programs in universe)*									
		NORTHEAST		NORTH CENTRAL		SOUTH			WEST		TOTAL
		1 New Eng	2 Middle Atlantic	3 East N.Cent	4 West N.Cent	5 South Atlantic	6 East S.Cent	7 West S.Cent	8 Mtn	9 Pacific	
1. Comp. h.s.	1	102	502	1034	190	704	146	265	228	719	3890
	2	8	41	89	20	14	39	34	35	69	349
	3	–	–	34	–	16	–	9	–	–	59
	4	–	79	94	–	–	–	15	–	17	205
2. Voc. h.s.	1	57	32	42	3	11	6	5	2	3	161
	2	7	2	2	2	2	2	–	2	–	19
	3	–	–	6	–	10	–	–	–	–	16
	4	–	21	5	–	–	–	1	–	–	27
3. Voc. center	1	37	142	87	106	161	211	80	20	7	851
	2	–	5	13	7	2	9	2	4	2	44
	3	–	–	2	–	8	–	3	–	–	13
	4	–	2	2	–	–	–	–	–	–	4
4. Tech. Inst.	1	17	8	49	50	73	37	41	8	6	289
	2	–	2	10	–	1	4	2	1	2	22
	3	–	–	–	–	–	–	–	–	–	–
	4	–	2	2	–	–	–	1	–	1	6
5. Comm. Coll.	1	23	53	68	64	109	48	55	42	118	580
	2	2	5	4	12	7	2	5	13	18	68
	3	–	–	5	–	7	–	3	–	–	15
	4	–	8	13	–	–	–	4	–	4	29
6. No master file record	1	7	37	65	27	58	9	39	27	62	331
	2	–	3	17	2	2	1	5	–	20	50
	3	–	–	5	–	7	–	6	–	–	18
	4	–	41	41	–	–	–	4	–	4	90
Total	1	243	774	1345	440	1116	457	485	327	915	6102
	2	17	58	135	43	28	57	48	55	111	552
	3	–	–	52	–	48	–	21	–	–	121
	4	–	153	157	–	–	–	25	–	26	361
TOTAL		260	985	1689	483	1192	514	579	382	1052	7136

* Excluding the 8 schools from the Kaufman study.

** Code for city size:

1. < 500,000
2. 500,000 - 750,000
3. 750,000 - 1,000,000
4. > 1,000,000

The 8 schools in our sampling universe that had been in the Kaufman study were transferred to a separate cell, for which a sampling ratio of 1 (i.e., 100%) was to be used. Adjacent cells of Table A1-4 were then combined as necessary, and a sampling ratio was set for each cell, on the basis of the following considerations:

a. The number of schools in the sample would have to be very close to 100.

b. For cells containing only one school (for the entire sampling universe) that one school would have to be in the sample.

c. For cells containing two or more schools, selecting an even number of schools in the sample would be desirable since it would facilitate splitting the sample into two parallel subsamples (both of which would include any schools selected with a sampling ratio of 1, e.g., schools to which paragraph b above applies) should that prove desirable for any analysis.

Bearing in mind formula 1 above and the fact that the weight to be applied to each sampling unit (each school) is the reciprocal of the probability of selection (where the probability of selection is the sampling ratio, or in the case of multistage sampling the product of the several sampling ratios), the cells were combined and the sampling ratios set in such a way that discrepancies in weights would not be large enough to greatly inflate the sampling errors. Our efforts in this direction succeeded very well, as indicated by the fact that the value of the formula 1 ratio (of course excluding schools selected with a sampling ratio of 1, since they add no sampling error at all) was only 1.06, indicating a 6% inflation in standard errors of means. And even that may be something of an overstatement since it is based on an assumption of a simple random sample from an infinite population, whereas our sample was drawn from a finite population and stratified, both of which facts should reduce sampling errors for a sample of a specified size.

After adjacent cells had been combined (and sampling weights set) in accordance with the above principles, the final cell count was 32, not including the schools to be selected with a sampling ratio of 1 (e.g., the schools from the Kaufman study).

The sample designed in accordance with the principles outlined above turned out to call for 102 schools (94 in addition to the 8 from the Kaufman study). The total number later dropped from 102 to 100, as indicated in paragraph 3 below.

3. Selecting the sample

After the final stratification plan had been settled, and the sampling ratio for each cell had been determined, the sample was selected, using computer-generated random numbers.

In addition to the number of schools specified by the chosen sampling ratio, several alternate schools were selected for each cell, to allow for replacement in case the originally selected school declined to participate.

Using replacement schools in this way, rather than just increasing the weight of schools in the same stratification cell that do participate, has at least two advantages. In the first place it helps insure that the number of sampling units (schools) per cell will not drop below two (with the exception indicated in paragraph C2b above). Furthermore, using replacement schools, by keeping the number of schools from dropping, helps keep sampling errors down.

Of the 102 schools in the sample 98 agreed to participate and four declined. One of the four was from the Kaufman Study group, and therefore could not be replaced. Two of the other three were replaced and a replacement could not be obtained for one. The final sample thus consisted of exactly 100 schools.

Appendix A.2

SELECTION OF SAMPLES OF INTERVIEWEES

A. Introduction

Selection of individuals to be interviewed had four aspects that involved sampling (one at the SEA level and three at the school):

1. At the SEA level

   Selection of subject-matter specialists in 3 of the 7 areas

2. At the school level

   a. Selection of 35 students

   b. Selection of 8 teachers

   c. Selection of 4 counselors

B. Selection of subject-matter specialists at state level

The SEA-level sampling was tentatively predetermined in advance of the site visits. Table A2-1 shows how the seven areas were tentatively distributed across states. This is a two-way randomized distribution, subject only to the restriction that there must be three different specialists for each state, and 21 or 22 from each of the seven categories. (In Table A2-1, the states are unnamed, and they are arranged in jumbled order to preserve their anonymity. There are 51 not 50 (including the District of Columbia) because the table was prepared before it was known that one SEA would decline to participate at the state level.)

Table A2-1 assumes that all seven kinds of specialists exist in each state. Since this was known in advance not to be the case, Table A2-2 was provided to indicate what specialist to interview if a specialist designated by Table A2-1 was nonexistent in that state.

C. Selecting students

1. In a school that had both vocational and other students (e.g., community college, comprehensive high school) only vocational students were selected.

TABLE A2-1 State-Level Subject-Matter Specialists to be Interviewed (3 per S.E.A.)

SEA #*	Health	Home Ec	Bus.	Market & Dist.	Tech.	Trade & Ind.	Ag.	Total
1.	—	HEc	—	M&D	—	—	Ag	3
2.	Hlth	HEc	Bus	—	—	—	—	3
3.	Hlth	HEc	Bus	—	—	—	—	3
4.	Hlth	—	Bus	—	Tech	—	—	3
5.	—	—	Bus	M&D	—	T&I	—	3
6.	—	—	Bus	—	Tech	T&I	—	3
7.	Hlth	HEc	Bus	—	—	—	—	3
8.	—	—	—	M&D	—	T&I	Ag	3
9.	Hlth	—	—	M&D	Tech	—	—	3
10.	—	—	Bus	M&D	Tech	—	—	3
11.	Hlth	HEc	—	—	Tech	—	—	3
12.	—	HEc	Bus	—	—	T&I	—	3
13.	Hlth	—	—	—	Tech	T&I	—	3
14.	—	—	—	M&D	Tech	—	Ag	3
15.	—	—	—	M&D	—	T&I	Ag	3
16.	—	HEc	—	M&D	—	—	Ag	3
17.	—	—	Bus	M&D	—	T&I	—	3
18.	Hlth	—	—	—	—	T&I	Ag	3
19.	—	—	Bus	—	Tech	T&I	—	3
20.	—	HEc	—	M&D	Tech	—	—	3
21.	Hlth	—	—	—	Tech	—	Ag	3
22.	Hlth	HEc	—	—	—	T&I	—	3
23.	—	—	Bus	M&D	—	T&I	—	3
24.	—	—	—	M&D	—	T&I	Ag	3
25.	—	—	—	M&D	—	T&I	Ag	3
26.	—	HEc	—	—	Tech	T&I	—	3
27.	—	—	Bus	M&D	—	—	Ag	3
28.	Hlth	HEc	—	—	—	—	Ag	3
29.	—	—	—	M&D	Tech	—	Ag	3
30.	—	—	Bus	M&D	—	—	Ag	3
31.	Hlth	—	Bus	—	—	—	Ag	3
32.	—	HEc	—	—	—	T&I	Ag	3
33.	Hlth	—	Bus	—	—	—	Ag	3
34.	Hlth	—	—	—	Tech	T&I	—	3
35.	—	HEc	—	—	—	T&I	Ag	3
36.	—	—	Bus	—	Tech	—	Ag	3
37.	—	HEc	—	M&D	Tech	—	—	3
38.	—	HEc	—	—	Tech	T&I	—	3
39.	Hlth	—	Bus	M&D	—	—	—	3
40.	Hlth	—	Bus	—	Tech	—	—	3
41.	Hlth	—	—	M&D	Tech	—	—	3
42.	Hlth	HEc	—	—	—	—	Ag	3
43.	Hlth	—	—	—	Tech	—	Ag	3
44.	Hlth	HEc	—	—	—	T&I	—	3
45.	—	—	—	M&D	—	T&I	Ag	3
46.	—	HEc	—	M&D	—	T&I	—	3
47.	—	HEc	Bus	—	—	T&I	—	3
48.	—	HEc	—	—	Tech	—	Ag	3
49.	Hlth	—	Bus	—	Tech	—	—	3
50.	—	HEc	Bus	—	Tech	—	—	3
51.	Hlth	HEc	Bus	—	—	—	—	3
TOTAL	22	22	22	21	22	22	22	155

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*SEAs in this table are are arranged in a jumbled order to avoid any possibility of jeopardizing the anonymity of states in this report.

TABLE A2-2. Selecting subject-matter specialist at SEA level if the specialist indicated in Table A2-1 is nonexistent

	Nonexistent Specialist	Substitute (listed, left to right, in descending order of preference)					
1.	Health	HEc	Bus	M&D	Tech	T&I	Ag
2.	Home Ec	Bus	Hlth	M&D	T&I	Ag	Tech
3.	Business	Hlth	HEc	M&D	Ag	Tech	T&I
4.	Market & Dist.	Tech	Bus	HEc	T&I	Ag	Hlth
5.	Technical	T&I	Ag	M&D	Hlth	HEc	Bus
6.	Trade & Ind.	Ag	Tech	M&D	HEc	Bus	Hlth
7.	Agriculture	Tech	T&I	M&D	Bus	Hlth	HEc

2. In a school that had 35 or fewer vocational students altogether, there was no selection problem. All vocational students were interviewed.

3. In a school that had more than 35 vocational students, 35 were selected, in accordance with the following instructions.

   a. Selecting the method to be used

   In determining how to select the students from a particular school we were heavily dependent on the form in which lists of students were available--and that, of course, differed considerably from school to school. In some schools overall alphabetic rosters of students were available. In others rosters existed only by vocational area; in still others, only by class. In some schools the sex of each student was indicated; in other schools it was necessary to guess on the basis of first name (not always a good indicator). In still other schools even that clue as to a student's sex was unavailable; the rosters identified students only in terms of last name and first initial. Likewise in some schools the rosters showed ethnic category; in other schools this information was not included. Furthermore the rosters available in some schools indicated the student's vocational area; in others this important bit of information was missing.

   The factors on which we preferred to stratify, if all the necessary data were available, were the following:

   Variable a. Sex and vocational area classified into six (or four) strata on the basis of Table A2-3, which shows for each of 176 occupations not only which of the 7 vocational areas it is in, but, more importantly from the viewpoint of the present discussion, whether it is stereotyped as a male occupation, or as a female occupation, or not stereotyped.

   1) Male, in traditionally male vocational area.
   2) Female, in traditionally male vocational area.
   3) Male, in traditionally female vocational area.
   4) Female, in traditionally female vocational area.
   5) Male, in traditionally nonstereotyped vocational area.
   6) Female, in traditionally nonstereotyped vocational area.

TABLE A2-3. Occupations in each of the seven vocational education areas and corresponding sex-role stereotyping (if any) for each occupation.

AREA		OCCUPATION
1. Health	F	Community Health Aid
	-	Cytology (Cytolotechnology)
	F	Dental Assistant
	F	Dental Hygiene
	F	Dental Laboratory Assistant
	F	Dental Laboratory Technician
	F	Dental, Other
	F	Electrocardiograph Technician
	F	Electroencephalograph Technology
	-	Environmental Health
	F	Hematology
	F	Histology
	F	Inhalation Therapy
	F	Inhalation (Respiratory) Therapy
	F	Medical Assistant
	F	Medical Laboratory Assistant
	F	Medical Laboratory Technology, Other
	F	Mental Health Technology
	M	Mortuary Science
	-	Nuclear Medical Technology
	F	Nursing
	F	Nursing Assistant (Aid)
	F	Nursing, Other
	F	Occupational Therapy
	F	Operating Room Assistant
	F	Ophthalmic
	F	Physical Therapy
	F	Practical (Vocational) Nursing
	F	Radiation Therapy
	F	Radiologic Technician (X-ray)
	-	Radiologic, Other
	F	Rehabilitation, Other
	-	Miscellaneous Health Occupations, Other
2. Home Economics	F	Care and Guidance of Children
	F	Child Development
	F	Clothing & Textiles
	F	Clothing Management Production Services
	F	Consumer Education
	F	Family Relations
	-	Food Management, Production & Services
	F	Foods & Nutrition
	F	Home Economics: Occupational Preparation
	M	Home Furnishing, Equipment, & Services
	F	Homemaking, Personal, Home, & Family
	F	Homemaking, Other
	F	Home Management
	-	Housing & Home Furnishing
	F	Institutional & Home Management
	F	Interior Decorating
	-	Sewing & Tailoring

Table A2-3 (continued

AREA		OCCUPATION
3. Business	F	Filing, Office Machines, & Clerical Occupations
	F	Information Communications
	F	Materials Support Occupations
	F	Office Machines
	F	Office Occupations, Other
	F	Office Practices
	F	Personnel, Training, & Related Occupations
	F	Stenographic, Secretarial, & Related Occupations
	-	Supervisory & Administrative Management Occupations
	F	Typing & Related Occupations
4. Marketing & Distribution	-	Advertising Services
	-	Apparel & Accessories
	M	Automotive
	M	Finance & Credit
	-	Floristry
	-	Food Distribution
	-	Food Services (see also under Trade & Industrial)
	-	General Merchandising
	M	Hotel/Motel
	M	Insurance
	-	Real Estate
	-	Recreation & Tourism
	F	Retail Trade, Other
	-	School Store
	M	Transportation
	M	Wholesale Trade, Other
	-	Distributive Education, Other
5. Technical	M	Aeronautical Technology
	M	Agricultural-Related Technology
	M	Agricultural Technology
	M	Air Pollution Technology
	M	Architectural Technology
	M	Automotive Technology
	M	Chemical Technology
	M	Civil Technology
	M	Commercial Pilot Training
	-	Data Processing (Computer)
	M	Electricity, Electrical Technology, & Electrician
	M	Electromechanical Technology
	M	Electronics, Electronic Technology, & Electronic Technician
	M	Environmental Control
	M	Environmental Technology
	M	Fire Science
	M	Fire & Fire Safety Technology; Fireman Training
	M	Forestry Technology
	F	Health-Related Technology
	F	Home Economics-Related Technology
	M	Industrial Technology
	M	Instrumental Technology
	M	Mechanical Technology
	M	Metallurgical Technology
	-	Nuclear Medical Technology
	M	Oceanographic Technology
	F	Office-Related Technology
	M	Petroleum Technology

Table A2-3 (continued)

AREA		OCCUPATION
5. Technical - continued	-	Photography; Commercial Photography Occupations
	M	Police Science; Law Enforcement Training
	M	Radio/TV
	-	Scientific Data Processing
	M	Water & Waste Water Technology
	M	Miscellaneous Technical Education, Other
6. Trade & Industrial	M	Air Conditioning Installation & Repair
	M	Aircraft Maintenance
	M	Aircraft Operations
	M	Appliance Repair
	M	Auto Body & Fender
	M	Auto Mechanics
	M	Automotive Services, Other
	M	Auto Specialization Repair
	M	Aviation Mechanics
	M	Barbering
	M	Blueprint Reading
	M	Building Construction
	M	Business Machine Maintenance
	M	Carpentry, Construction
	-	Commercial Art
	M	Commercial Fishery Occupations
	M	Construction & Maintenance Trades, Other
	F	Cosmetology
	M	Custodial Services
	M	Diesel Mechanics
	M	Drafting
	M	Drywall Installation
	M	Electrical Occupations
	M	Electronic Occupations
	M	Fabric Maintenance Services
	-	Food Service (Culinary Arts) (see also under Marketing & Distribution)
	M	Foreman, Supervisor, & Management Development
	M	Graphic Arts
	M	Ground Operations
	M	Heavy Equipment Maintenance Operations
	M	Industrial Atomic Energy Occupations (other than technical)
	M	Instrument Maintenance & Repair Occupations
	M	Leatherworking
	M	Machine Shop
	M	Machine Tool Operation
	M	Maritime Occupations
	M	Masonry
	M	Metallurgy Occupations (other than technical)
	M	Metalworking Occupations
	M	Painting
	M	Plastering
	M	Plastics Occupations
	M	Plumbing & Pipefitting
	M	Printing & Graphics
	M	Public Service Occupations, Other
	-	Quantity Food Occupations
	M	Refrigeration
	M	Sheet Metal
	M	Small Engine Repair
	M	Stationary Energy Sources Occupations

Table A2-3 (continued)

AREA		OCCUPATIONS
6. Trade & Industrial - continued		
	M	Textile Production & Fabrication
	M	Tool & Die Making
	M	Upholstering
	M	Welding
	M	Woodworking
	M	Trade & Industrial, Other
7. Agriculture	M	Agricultural Mechanics
	M	Agricultural Production
	M	Agricultural Products
	M	Agricultural Resources
	M	Agricultural Supplies/Services
	-	Greenhouse
	M	Forestry
	-	Horticulture & Related Occupations
	M	Agricultural, Other

Note: Any course title containing the word "technician" or "technology" was considered to be in category 5, Technical Occupations.

*The code for indicating sex-role stereotyping is as follows:

M Male-stereotyped
F Female-stereotyped
- No sex-role stereotyping

Variable a above has two versions, a1 and a2, as follows:

a1. In this version vocational area is defined as the specific occupational field. All six of the strata above are used.

a2. In this version vocational area is defined in terms of seven broad areas:

1. Health 2. Home economics 3. Business and office	Traditionally female
4. Market and distribution* 5. Technical 6. Trade and industrial 7. Agriculture	Traditionally male

Only the first four of the six strata listed above are used. The last two (for traditionally nonstereotyped vocational areas) are not used in this version.

Variable b. Ethnic category, classified as follows:

1) White non-Hispanic
2) Black non-Hispanic
3) Hispanic
4) American Indian or Alaskan
5) Asian or Pacific Islander

When it was not feasible to use Variable a, which involves vocational area and sex jointly, it was sometimes feasible to use one or the other of these two components separately. These are variables c and d.

Variable c. Vocational field^{z}classified into seven broad fields as in Variable a2.

Variable d. Sex of student

As implied above, in some schools variations in the nature and extent of available rosters precluded use of the optimum stratification procedure--i.e., stratification on variables a1 and b. The goal then became to use the best plan possible for each school, given the available data. In general, depending on the kind of student rosters available, students were sampled on one of the following bases:

---

* For use in Variable a2 the "marketing and distribution" area is treated as "traditionally male," though in fact many of the specific occupations in the area are traditionally female.

Basis 1: Stratification variables *a1* and *b* (as indicated above).

Basis 2: Stratification variables *a2* and *b* (as indicated above).

Basis 3: Stratification variable *a1* only.

Basis 4: Stratification variable *a2* only.

Basis 5: Sex and variable *b*.

Basis 6: Variables *b* and *c*.

Basis 7: Sex only.

Basis 8: Variable *c* only.

Basis 9: Variable *b* only.

Basis 10: No stratification at all; sampling was done uniformly from the entire student body.

The ten bases above are listed in descending order of desirability.

After a school had been selected for the sample it was contacted by phone to secure basic information needed prior to the site visit. In this phone contact, information was sought about the nature of the student rosters. On that basis it was possible to decide tentatively which of the ten plans listed above would be the best feasible one. In a few schools an *ad hoc* plan better than the tenth but different from any of the first nine was specially developed to fit a unique pattern of available data--one example of this, i.e., "Basis 11," is described in Section C, which follows, starting on page A20. The basis to be used (i.e., Basis 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10) was tentatively decided upon before the site visit, and the tentative decision was communicated to the team leader via the "Preliminary Information Form for Schools." (See Figure A2-1 for a copy of this form, one of which was completed for each school.) The top half of the form was filled out at project headquarters prior to the site visit to the school.

Occasionally it became apparent on examining the available school rosters that the information received over the phone was incorrect. When that occurred the site visitor had to determine himself (herself) which of the ten bases listed above was the lowest-numbered feasible one--i.e., the lowest-numbered one for which adequate data were available in a usable form.

FIGURE A2-1. PRELIMINARY INFORMATION FORM

for School 3 - __ __ - __ __ - __
state LEA sch

PERSON TO CONTACT ON-SITE

Name ____________________

Title ____________________

Name of School ____________________

Address ____________________

City ____________________

State ____________________ ZIP ____________________

Kind of School

- ____11. Comprehensive high school
- ____12. Vocational high school
- ____21. Vocation center (shared time)
- ____31. Technical institute
- ____32. Community college (Junior college)
- ____99. Other (Explain) ____________________

____

____

____

PRELIMINARY INFORMATION*--
For use in preliminary planning only.
Not to be regarded as final data.

		Approx. no. in school
Voc. students	Male	
	Female	
	Total	
Voc. teachers		
Counselors		

Fields in which programs exist:

- ____ 1. Health
- ____ 2. Home Ec
- ____ 3. Business
- ____ 4. M & Dist.
- ____ 5. Tech
- ____ 6. T & I
- ____ 7. Ag

DETERMINING BASIS FOR SELECTING STUDENTS*

For use of strat. variable #	Is required data available and usable?			Requires that data be available for each student on:
	No	Exists but not usable*	Yes	
a1				Sex and specific occupational field
a2				Sex and occ. field in 7 broad areas
b				Ethnic category
c				Occ. field in 7 broad areas
d				Sex
Done by				
Date				
Checked by				
Date				

Basis # (circle one used)	Strat. Var. Req.	Basis recommended (Chk 1 in each col)		Stud Sel. Rec. Form
		Tentative	On-site	
1	a1, b			A
2	a2, b			B
3	a1			A
4	a2			B
5	b, d			B
6	b, c			C
7	d			B
8	c			C
9	b			B
10	-			B
To be decided on-site			▨	▨
Done by				
Date				
Checked by				
Date				

* ☐ Mark box if there are explanatory notes on back of sheet.

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In a few schools it was impossible to get any kind of appropriate information (about the nature of the available student rosters) over the phone from the school. In that case instead of recommending one of the ten bases for selecting students the blank for "To be decided on-site" was checked.

b. Applying the selected method

Having confirmed that whichever one of the ten possible bases for stratification was indicated in advance on the "Preliminary Information Form for Schools" was the appropriate one, or, failing that, having chosen an alternative method, the next step was to apply the selected method. For this purpose, one of the three "Student Sample Selection Record Forms" shown in Figure A2-2a, A2-2b, and A2-2c was used as a working form. These three forms apply as follows:

Student Sample Selection Form	Figure in which shown	Sample Selection Basis for which used
A	A2-2a	1 or 3
B	A2-2b	2, 4, 5, 7, 9, or 10
C	A2-2c	6 or 8

The number of strata for each of the five stratification variables described above is as shown in Table A2-4. Table A2-5 shows the number of cells. There is a cell for each possible combination of strata. Thus the number of cells equals the product of the numbers of strata for those stratification variables that are being used.

Use of the Student Sample Selection Record Form (A, B, or C) involved using a table of random unmbers. Two methods of using them are described in a subsequent section. The Team Leader was responsible for deciding which method would be the most convenient and the most advantageous one to use in a given school.

In each cell of the Student Sample Selection Record Form there is space to record five numbers: N, n, n´, d, and f. N, n, and n´ had to be recorded in every cell. Whether d and f were recorded depended on the method of using random numbers that was selected. Method II required d and f; Method I did not.

FIGURE A2-2a

STUDENT SAMPLE SELECTION RECORD FORM **A**

School
Code 3 - __ __ - __ __ - __

Occupational stereotyping	Bank	Student sex		1. White non-H	2. Black non-H	3. Hispanic	4. Other	Total
Traditionally Male	①	M	N					
			n					
			n´					
			d					
			f					
	②	F	N					
			n					
			n´					
			d					
			f					
Traditionally Female	③	M	N					
			n					
			n´					
			d					
			f					
	④	F	N					
			n					
			n´					
			d					
			f					
Non-stereotyped	⑤	M	N					
			n					
			n´					
			d					
			f					
	⑥	F	N					
			n					
			n´					
			d					
			f					
Total		M	N					
		F	N					
		T	N					

Selection Basis (Check One)	Columns to be Used
___ 1	1 - 4
___ 3	Total

Are source records such that same student could be counted more than once? (e.g., class rolls)

0___No

1___Yes (Explain on back

Date					
Chkd by					
Date					
Done by					
	N	n	d	f	n

N looks OK? ___ Yes

___ No

By____________

c =

n̄ =

Σ n = 35 ___

N and n sums check by:

____

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FIGURE A2-2b

STUDENT SAMPLE SELECTION RECORD FORM B

School
Code 3 - __ __ - __ __ - __

Band	Occupational Fields	Bank	Student sex		1. White non-H	2. Black non-H	3. Hispanic	4. Other	Total
A	**First 3 fields:** 1. Health 2. Home Ec 3. Bus.	①	M	N					
				n					
				n′					
				d					
				f					
		②	F	N					
				n					
				n′					
				d					
				f					
B	Last 4 fields: 4. M & D 5. Tech 6. T & I 7. Ag	③	M	N					
				n					
				n′					
				d					
				f					
		④	F	N					
				n					
				n′					
				d					
				f					
C	All fields combined	⑤	M	N					
				n					
				n′					
				d					
				f					
		⑥	F	N					
				n					
				n′					
				d					
				f					
D	TOTAL	⑦		N					
				n					
				n′					
				d					
				f					

Selection Basis	Cols. Used	Horizontal Bands Used*
__ 2	1 - 4	A - B
__ 4	Total	A - B
__ 5	1 - 4	C
__ 7	Total	C
__ 9	1 - 4	D
__ 10	Total	D

*Row N of Band D is always used.

Are source records such that same student could be counted more than once? (e.g., class rolls)

0__ No

1__ Yes (Explain on back)

	Done by	Date	Chkd by	Date
N				
n				
d				
f				
n′				

N looks OK? __ Yes
__ No
By__________

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c =
$\bar{n}$ =

N and n sums check by: __________

FIGURE A2-2c
STUDENT SAMPLE SELECTION RECORD FORM **C**

School
Code 3 - __ __ - __ __ - __

Occupational Area		1. White non-H	2. Black non-H	3. Hispanic	4. Other	Total
1. Health	N					
	n					
	n´					
	d					
	f					
2. Home Ec	N					
	n					
	n´					
	d					
	f					
3. Business	N					
	n					
	n´					
	d					
	f					
4. Marketing & Dist.	N					
	n					
	n´					
	d					
	f					
5. Technical	N					
	n					
	n´					
	d					
	f					
6. Trade & Industrial	N					
	n					
	n´					
	d					
	f					
7. Agriculture	N					
	n					
	n´					
	d					
	f					
TOTAL	N					

Selection Basis (Check One)	Columns to be Used
____ 6	1 - 4
____ 8	Total

Are source records such that same student could be counted more than once? (e.g., class rolls)

0____No

1____Yes (Explain on back)

Date					
Chkd by					
Date					
Done by					
	N	n	d	f	n´

n =

n´ =

N looks OK?

____ Yes

____ No

By__________

Σ n = 35 ____

N and n sums chec

by: __________

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TABLE A2-4 Number of strata for each stratification variable

Stratification Variable	No. of Strata
a1	6
a2	4
b	4
c	7
d	2

TABLE A2-5 Number of cells for each stratification basis

Stratification Basis	Calculating No. of cells	No. of Cells
1	6 x 4	24
2	4 x 4	16
3	6	6
4	4	4
5	4 x 2	8
6	4 x 7	28
7	2	2
8	7	7
9	4	4
10	Not known	Not known

The five number in each cell are defined as follows:

N = number of students in the school belonging in that cell.

n = number of students selected from that cell. (Note that n cannot exceed N.)

n' = number of students from the cell who were actually interviewed. (Note that n' should be exactly equal to n. In the event that some irregularity occurred that caused n' to differ from n in any cell, a clear explanatory note was written by the Team Leader.

d = N/n. If d was calculated, it was recorded to one or two decimal places (rounded, not truncated).

f is the ordinal position of the first case to be selected.

A more detailed explanation of these concepts follows in descriptions of Methods I and II.

Method I. ("Random random")

Step 1. N (total population of category) is recorded for each cell. The total N (or the totals by sex) are compared with the values on the Preliminary Information Form. If they are reasonably close, "Yes" is checked in the "N looks OK" box. If there is a serious discrepancy, the Team Leader checks "No" and tries to resolve the discrepancy.

Step 2. A count is made of the number of cells (c) having non-zero entries for N.

Step 3. Dividing 35 by c gives the average number of cases per non-void cell. This number ($\bar{n}$) is recorded on the Student Sample Record Form.

Step 4. For each cell for which N is less than $\bar{n}$, the sample size, n, should equal the population size, N. These values of n are recorded.

Step 5. The remaining cells are counted to get a new c value. From the total sample size desired (35), the sum of the cell n values already assigned is subtracted to get the number of sample cases still to be distributed among cells. That number is then divided by the new c value, to get a new $\bar{n}$ value. Steps 4-5 are repeated, iterating until there are no cells for which N is less than $\bar{n}$.

Step 6. For each remaining cell n should be as near to $\bar{n}$ as possible, so as to have the cells as close to uniform in sample size as is feasible.

The value of n is assigned for each cell in accordance with this principle. (Of course, the n for each cell must be an integer.)

Suppose, for example, that there are eight cells with cases in them; and that one of these cells has two cases, while all the others have at least five.

$$\bar{n} = \frac{35}{8} = 4\,\frac{3}{8}$$

Two cases are assigned to the sample from the smallest cell, leaving 35 - 2 = 33 sample cases still to be assigned, and seven cells among which they are to be distributed. The new $\bar{n}$ value therefore is:

$$\bar{n} = \frac{33}{7} = 4\,\frac{5}{7}$$

This number is recorded.

None of the seven remaining cells has an N smaller than $\bar{n}$. The seven n values should be 5, 5, 5, 5, 5, 4, 4. (Note that the total of these seven values is 33, as it should be.)

It is up to the Team Leader (or whatever team member is selecting the sample) to decide which of the seven cells have five sample cases assigned and which have only four.

Note on the advantages of the method outlined in Steps 2-6. Steps 2-6 outline a method of determining how many cases from each stratification cell are to be in the sample--in other words, how the 35 cases that constitute the entire student sample for a school are to be distributed among cells. The major advantage of the particular procedure outlined is that it oversamples minority segments of the population, to the maximal degree reasonable.

Step 7. Handling each cell separately, the n cases for the sample are selected as follows:

a. Conceptually assign a random number to each of the N cases in the cell. The random numbers should be considered to have at least two more digits than the cell N has (to reduce the possibility of ties).

In assigning random numbers it is permissible to start at any point in the random numbers table.

b. The n cases with the lowest random numbers are selected. These are the sample for the cell.

Method II. ("Systematic random")

Steps 1-6. Same as for Method I.

Step 7. The cell value is computed. (It is rounded to the nearest tenth or hundredth.) Formula 1 is used for the purpose.

Step 8. Using the table of random numbers, a random number, f, between 1 and d inclusive is selected. That number, f, defines the first case in the sample, from the cell in question.

Step 9. The ordinal positions of the cases to be selected are determined as follows:

a. The first case in the sample will be case f in the cell--in other words the fth case.

b. The second case to be selected will be case $f + d$.

c. The third case will be case $f + 2d$.

d. The fourth case will be case $f + 3d$, etc.

These ordinal positions are computed by adding d to get each successive position.

Then, if d is not an integer, the computed ordinal positions are rounded to the nearest whole number.

Step 10. The sample, consisting of the cases in the cell in these rounded ordinal positions computed in Step 9, is selected.

c. Special method for selecting students (i.e., "Basis 11")

It has already been noted that when none of selection bases 1-9 seemed feasible, it was permissible to improvise a method of selecting a probability sample that for the special situation in question was superior to basis 10 (i.e., simple random sample, without any stratification). Accordingly one such procedure ("Basis 11") is described below.

1) Situation in which basis 11 was most likely to be needed

Basis 11 was to be reserved, if possible, for situations in which all of the following conditions held:

a. The school was extremely large (e.g., a community college with 20,000 vocational students).

b. There was not time to sample directly from student rosters on any of bases 1-10, or student rosters were not readily available in a manageable form.

c. The school could provide a list of classes.

2) The Basis 11 procedure

An initial sampling was carried out in which classes were treated as if they were students and 35 classes were selected in the same way as if Basis 8 were used to select 35 students.

For selecting classes either the "random random" or "systematic random" method might be used, whichever seemed best.

Then, using the random random method, one student was selected from each of the 35 classes.

d. Situations where special rules apply for sampling of students

1) Schools which have both secondary and postsecondary students

a. Comprehensive high schools and vocational high schools

If these schools had both secondary and postsecondary students, the postsecondary students were ignored. Only the secondary students were sampled.

b. Vocational centers

Vocational centers are primarily secondary but may also have some postsecondary students. Sampling was done from all students in these schools.

c. Community colleges and technical institutes

These schools are primarily postsecondary but some may also have some secondary students. In such schools the secondary students were ignored. The sample was drawn only from the postsecondary students.

2) Evening students

In some schools, particularly community colleges, a very large proportion of the students are evening students. They were, of course, included in the sample selection on exactly the same basis as day students.

3) Shared-time students

Shared-time students in secondary schools were treated just like other secondary schools students (full-time or part-time), in the sampling.

D. Selecting the teachers

Eight teachers were to be selected from each school. The method by which they were selected was stratification on the basis of the seven major vocational areas:

1. Health
2. Home Economics
3. Business
4. Marketing and Distribution
5. Technical
6. Trade and Industrial
7. Agriculture

The procedure was as follows:

Step 1. A list of teachers is arranged in the seven blocks indicated above. It does not matter at all what order the names are in, within vocational area.

Step 2. The total number of teachers in the school is divided by 8, and the resulting quotient (rounded to one decimal place) will be designated d.

Step 3. Using the table of random numbers, an integer, f, between 1 and d is chosen to indicate the ordinal position on the roster of the first teacher chosen. The second teacher's position is f + d; the third is f + 2d, etc. After these positions have been computed to one decimal place, they are rounded to the nearest integer. This procedure yields exactly eight teachers for the sample.

It will be noted that the method described above is a slight modification of "Method II" (one of two methods described in Section C above, for selecting students). The only difference is that after the teachers have been arranged in seven blocks (Step 1 above) the remainder of the sample selection operation is carried out as if all the cases were in a single cell--i.e., as if there were no stratification. The form shown in Figure A2-3 is used.

E. Selecting the Counselors

Two lists of counselors were secured for each school. The first list contained the counselors in the school itself and the second contained the counselors in the feeder schools.

The number of counselors to be selected from each list was as shown in Table A2-6.

Sampling from each of the lists was done by the same procedure as sampling from the list of teachers (see Section D above) except, of course, that the divisor was 3, 2, or 1 (the number of counselors to be selected) instead of 8. The sampling was done separately from each of the two lists. The Figure A2-3 form was used.

F. Replacements for school-level interviewees

For any students, teachers, or counselors who were selected for the sample but for some reason could not be interviewed, replacement cases were selected randomly (from the same cell as the case replaced, when the procedure called for stratified sampling), until the supply was exhausted. If no more cases were left in the cell from which the sampling was done, no further efforts were made to locate replacement cases. Instead the weights were readjusted to correct for the missing cases.

G. After selection of the student sample

1. Using the Student Sample List form (Figure A2-4) a record was made of which cell (of the Student Sample Selection Record Form) each student in the sample was selected from. (That cell was to be recorded even if the student turned out to have been in the wrong cell. For instance, suppose that Lee Anderson, who was registered as a black male welding

FIGURE A2-3

SCHOOL STAFF SAMPLE SELECTION FORM

School
Code 3 - __ __ - __ __ - _

Kind of Staff		Total number (N)	Number in sample (n)
Instructor			*
Counselor	In sample school		**
	In feeder schools		**

Form completed by ____________________

Date ____________________

* Unless there are fewer than 8 vocational instructors in the school, this number will normally be 8. If it is not, please explain below.

** Unless there are too few counselors in the school(s), these two numbers will normally add to 4. If they do not, please explain below.

Comments, explanation of irregularities, etc.:

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TABLE A2-6 Number of counselors to be selected for each school in the sample

	Number of counselors to be selected		
	From first list (schools in sample)	From second list (feeder schools)	Total
a. If the first list contains at least 62.5 percent of the names	3	1	4
b. If the first list contains less than 62.5 percent but at least 37.5 percent of the names	2	2	4
c. If the first list contains less than 37.5 percent of the names	1	3	4

Sheet _____** of _____

FIGURE A2-4

STUDENT SAMPLE LIST

School Code __ __ - __ __ - __

Student Name	Voc. Area #*	St. #	Cell Horiz. Bank (1-7)	Cell Vert. Col. (1-4, Tot)
		01		
		02		
		03		
		04		
		05		
		06		
		07		
		08		
		09		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		
		21		
		22		
		23		
		24		
		25		
		26		
		27		
		28		
		29		
		30		
		31		
		32		
		33		
		34		
		35		

To preserve student anonymity, this section of the form, to the left of the vertical dotted line, was removed and destroyed before leaving the site.

Guide to Cell Ident.

Student Sample Select. Record Form	Sel. Basis	Cell Description Range Horiz.	Cell Description Range Vert.
__ A	__ 1	1-6	1-4
	__ 3	1-6	Tot
__ B	__ 2	1-4	1-4
	__ 4	1-4	Tot
	__ 5	5-6	1-4
	__ 7	5-6	Tot
	__ 9	7	1-4
	__10	7	Tot
__ C	__ 6	1-7	1-4
	__ 8	1-7	Tot

Selection method:

____1. Random random

____2. Systematic random

Done by ______________

Date ___________

Vocational Area Codes

1. Health
2. Home Economics
3. Business
4. Marketing & Dist.
5. Technical
6. Trade & Indust.
7. Agricultural

8/7/3-10999

* Indicate actual area, even if it does not correspond to cell.

** Sheet #1 is for the original sample. Subsequent sheets are for replacement cases.

student and thus was selected from the third cell (male, T&I) in the second column of Student Sample Selection Record Form B, turned out to be a white female welding student. She was still to be recorded as having been selected from the black male cell containing welding students. Of course in the appropriate space in the student interview form she would be recorded properly, as a white female. The actual cell from which the case was selected needed to be known so that the correct weight could be assigned for data analysis. (See Appendix C.1.)

2. The cell from which selected was then recorded on the student's interview form near the student code number.

3. After the interview had been completed, n´ (the number of students from each cell actually interviewed) was recorded on the Student Sample Selection Record Form.

H. Effectiveness of student sample-selection procedure (as a means of oversampling small groups for which more than proportional representation is desired)

Table C.23a in the text of this report shows what the sample is like in terms of sex of students, ethnic category, type of school, and whether the student's occupational area is traditional, nontraditional, or unstereotyped with respect to sex.

It should be borne in mind that the proportions in various categories in the sample are neither exactly nor approximately the same as the corresponding population proportions--nor are they intended to be. For both the selection of the school sample and the selection of the student sample within selected schools differential ratios were used, which had the effect of "oversampling" some groups (e.g., students enrolled in nontraditional programs, ethnic minorities), for which we wished to insure a substantial number of cases, in order to permit separate analyses of these subgroups. Use of appropriate weights, by counteracting the effect of unequal sampling ratios, permits accurate estimates of population values. Table A2-7 shows how effectively the described procedure oversamples where desired. The estimates of the size of various segments of the student population in the school sample,[*] as shown in Table A2-7,[**] were obtained by weighting the sample cases by the method described in Appendix C.1. The raw percentages shown in column 3 are compared with the weighted percentages (column 4) in two different ways. Column 5 shows the absolute difference in percentages. For instance, the difference between the raw percentage of nontraditional females (7.7%) and the weighted percentage of nontraditional females (3.5%) is 4.2%; in other words a 4.2% share *of the total*. Column 6, on the other hand, by presenting the *ratio* of the raw percentage to the weighted percentage compares the two percentages directly, without reference to the *total* sample, or the *total* population. It shows, for instance, that the raw percentage of nontraditional females is 2.2 times as large as the corresponding weighted percentage; in other words it is 1.2 times larger, representing a *relative* oversampling rate of 120 percent. Similarly for nontraditional males, the relative rate of oversampling is 52%. *Traditional* males are undersampled by 17% in relative terms, as shown in column 6.

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[*] The weights used for this purpose are given by formula 2b in Appendix C.1.

[**] The data in columns 1 and 2 of this table are taken from Table C.51a.

TABLE A2-7 Effectiveness of the Student Sample Selection Algorithm in Producing the Type of Oversampling Desired

		(1)	(2)	(3)	(4)	(5)	(6)
Category of program in which student is enrolled	Sex	No. of students in sample		% of students			Ratio
		Raw N	Weighted No.*	Raw	Wtd.	Difference (Raw-Wtd.)	Raw % / Wtd.%
Traditional	Male	996	19637	30.2	36.3	-6.1	.83
	Female	826	17045	25.1	31.5	-6.4	.80
	Combined	1822	36682	55.3	67.8	-12.5	.82
Mixed	Male	428	5909	13.0	10.9	2.1	1.19
	Female	581	7350	17.6	13.6	4.0	1.29
	Combined	1009	13259	30.6	24.5	6.1	1.25
Nontraditional	Male	211	2298	6.4	4.2	2.2	1.52
	Female	254	1877	7.7	3.5	4.2	2.20
	Combined	465	4175	14.1	7.7	6.4	1.83
TOTAL	Male	1635	27844	49.6	51.5	-1.9	.96
	Female	1661	26272	50.4	48.5	1.9	1.04
	Combined	3296	54116	100.0	100.0	.0	1.00

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*Weights are given by Formula 2b in Appendix C.1. These weights yield the number of students in the student population in the school sample.

Appendix B

INSTRUMENT DEVELOPMENT AND DATA COLLECTION

Appendix B

Instrument Development and Data Collection

The Vocational Education Equity Study, conducted by the American Institutes for Research was designed to respond to Section 523(a) of the Education Amendments of 1976 (Public Law 94-482) in which Congress mandated that a study be made to determine the extent and nature of sex stereotyping and sex discrimination in vocational education. The data collection forms for this study were developed in response to the objectives listed below. These objectives reflect the information needed by the U.S. Office of Education in making the required report to Congress.

1. Assess the extent to which sex discrimination and sex stereotyping exist in all vocational programs assisted under the Vocational Education Act of 1963, as amended.

2. Identify and analyze the various practices and activities, internal to the administration of the Vocational Education Act at the federal, state, and local levels which may facilitate or hinder equal opportunities for both sexes to have equal access to and preparation for a broad range of occupational fields.

3. Identify and analyze the various practices and activities, internal to vocational porgrams, including prevocational guidance and counseling, recruitment and placement as well as practices within the classrooms, laboratories, and work experience programs which result in sex bias.

4. Identify and analyze the school porgrams and practices which appear to be successful in reducing or eliminating sex bias and providing equal access to all students to a wide range of training opportunities and jobs.

5. Assess the progress made in reducing or eliminating such sex bias in programs assisted under the Act (P.L.94-482).

6. Develop criteria by which Federal, state, and local administrators can measure progress in reducing sex bias.

7. Identify and analyze factors external to the school, such as reluctance of employers or unions to accept women for certain jobs or apprentice programs, and analyze how schools are dealing with such factors.

8. Identify and analyze the extent to which progress has been made in reducing sex discrimination and sex stereotyping in occupations for which vocational students train.

Using these objectives as a guide, comprehensive reviews of the literature and legislation were undertaken to establish the major research topics which must be addressed. The specific research topics were developed by two subcontractors in cooperation with the American Institutes for Research. Steiger, Fink, and Kosecoff, Inc developed topics pertaining to all students in vocational education. L. Mirandor and Associates developed topics which are particularly relevant to minority women in vocational education. The general research topics are presented below:

Topic 1: Number of Males and Females with Jobs in Occupations for which Vocational Students are Trained . . .

Topic 2: Wages of Males and Females with Jobs in Occupations for which Vocational Students are Trained . . .

Topic 3: Participation in Vocational Education Classroom Training Programs . .

Topic 4: Male and Female Students in Cooperative Education Programs .

Topic 5: Male and Female Attrition Rates from Vocational Education Programs

Topic 6: Male and Female Students' Vocational Competencies

Topic 7: Male and Female Vocational Graduates' Satisfaction with Careers

Topic 8: Male and Female Students' Career Plans and Vocational Educators' Influence on These . . .

Topic 9: Students' (Male and Female) and Staffs' Satisfaction with Vocational Programs

Topic 10: Employers' Satisfication with Male and Female Employees Who Graduated from Vocational Programs

Topic 11: Students, Staffs, and Employers' Opinions about Roles and Responsibilities of Men and Women in the Labor Force

Topic 12: Students, Graduates, and Employers' Attitudes Towards Sex Inequities

Topic 13: Staff Awareness of Effective Methods for Reading Sex Inequities .

Topic 14: Staffing Patterns in Vocational Education Programs . .

Topic 15: Implementation of Title IX at the State Education Agency Level .

Topic 16: Implementation of Title IX at the Local Agency Level .

Topic 17: Implementation of Sex Fairness Provisions--State Education Agency Level . . . .

Topic 18: Implementation of Sex Fairness Provisions--Local Education Agency Level . . .

The following additional research topics relate to the particular needs of minority women

- Counseling services provided to minority women
- Cultural awareness programs for staff
- Native language examinations used in placing and evaluating minority students
- Placement activities for minority women
- Linguistic support services for non-English dominant students
- Programs or procedures to attract minority women students
- Special career awareness programs for minority group members

The data collection instruments were developed to obtain information on as many of these research topics as possible. Six different instruments were used to collect information for the Vocational Education Equity Study. The collection instruments were designed to be used in a personal interview situation. The separate instruments are:

- Interview of State Directors of Vocational Education
- Interview of State Agency Personnel
- Instructor Interview
- Counselor Interview
- Student Interview and Questionnaire

A standard glossary was also developed to accompany the data collection instruments. It contained definitions of terms used, and explained and provided examples of the various scale points used in the instruments.

AIR staff members who were to serve as data collection team leaders received intensive training in the use of the data collection instruments. Each team leader worked with a group of local data collectors who also received training in the use of the instruments.

All site visits were conducted during April, May, and June of 1978. The visit to the state agency was always made before any visits were made to schools in the state. The state visit was always made by the AIR team leader and required 1 1/2 to 2 days. An SEA visit consisted of the following interviews:

- State Director
- Sex Equity Coordinator
- Director of Research
- Director of Professional Development
- Director of Guidance and Counseling
- 3 Occupational Program Specialists selected on a stratified random basis before the visit
- Executive Director of the State Advisory Council

The visit to the sample schools and their corresponding Local Education agencies lasted from 2 to 3 days. On these visits the AIR team leader was assisted by 2 or 3 local data collectors. The following individuals were interviewed in each school/LEA visit.

- LEA Director
- LEA Director of Guidance and Counseling
- 8 instructors, sampled from the occupational areas taught at the school
- 4 counselors; 2 from the Vocataional school, and 2 from feeder schools
- 35 students also selected on a stratified basic.

All data collected were treated confidentially and no names or other identifiable information were taken from the site. All data forms were coded to meet these confidentiality standards. The results of this data collection effort are reported in the main body of this report.

Appendix C

SOME TECHNICAL ASPECTS OF DATA ANALYSIS

C.1 Differential Weighting in Data Analysis C-2

C.2 Activity Indexes C-7

C.3 How Significant are Tests of Statistical Significance?. C-17

C.4 Estimation of Certain Percentages Reported in Chapter II.C C-20

C.5 Jobs Placed into Each of Five Socioeconomic Levels . . C-22

Appendix C.1

DIFFERENTIAL WEIGHTING IN DATA ANALYSIS

1. Weights for Schools

As was indicated in Appendix A.1, although the schools to be included in the study were selected by a random sampling procedure, they were not a simple random sample, with uniform sampling ratios. Rather, they constituted a stratified random sample and the sampling ratios were not uniform over strata.

Therefore, in those data analyses in which it was desired to obtain statistics of any sort (e.g., distributions, means, standard deviations) which would be essentially unbiased estimates of the corresponding population values, it was necessary to weight each school appropriately. The general rule for weights of this sort is that the weight for each sample element (e.g., each school) should be equal to the reciprocal of the sampling ratio used for selection of that element (for whatever kind of basic element--school, for instance--the data analysis applied to). Thus in data analyses applicable to schools the weight for each school is the reciprocal of the corresponding sampling ratio.

The basic formula is: $W_{3i} = \frac{F_j}{f_j}$ (1)

where the notation is as follows:

W_{3i} = school weight for school i

F_j = number of schools in population of schools, in cell j, from which school i was selected

f_j - number of schools selected for sample, from cell j.

2. Weights for Interviewees at the School Level (students, teachers, counselors)

For categories of interviewees (e.g., students, teachers, counselors in the sample schools) the situation is somewhat more complicated since the interviewees were selected by a two-stage sampling process; the first stage was the selection of the school and the second was the selection of the specific persons within a particular category (e.g., counselors, or teachers, or students) to be interviewed. For each interviewee, then, the appropriate weight is the reciprocal of the product of the sampling ratios used at each stage--i.e., the sampling ratio used for selecting the school and the second-stage sampling ratio used for selecting that particular interviewee within the school.

For example, if a school was one of two selected from a cell containing 150 the school weight would be 75. Within that school a particular student might have been one of five students selected from a cell containing 40 students altogether. Assuming that each student in that school was recorded on the source rosters only once, and thus had only one chance of being selected, each student selected from the school would represent eight students altogether (40 ÷ 5), including himself or herself, within the school. He or she would also represent all the students in the other schools represented by that particular school. The appropriate weight, thus, would be 75 (the school weight) times 8, or 600. In other words, that student would be considered to represent 600 students altogether.

The same principle is applied in determining weights for vocational instructors, and for counselors in the sampled schools. It should be noted that weights have not been determined for counselors in feeder schools. The reason for this is that there was no practical way to get a "probability sample" of feeder schools since the concept of feeder school is vague and ill-defined in many jurisdictions.

Thus, the sample of feeder school counselors can best be regarded as a reasonable one, which gives a general idea of what feeder school counselors are like with respect to the variables analyzed, but which does not give unbiased estimates of the precise values on those variables for counselors of students who are not in vocational programs but will eventually go to other schools, where they will be enrolled in vocational programs of some sort.

The formula for student weights is as follows:

$$W_{4ijk} = W_{3i} \cdot \frac{d_{2k} \sum^{N_{ij}} d_{1k}}{d_{1k} \sum^{n_{ij}} d_{2k}} \tag{2a}$$

where the notation is as follows:

W_{4ijk} = Student weight for student k from cell j from sample school i.

W_{3i} = school weight, as defined in formula 1.

d_{1k} = number of opportunities student k has to be selected for the sample--in other words, the number of times he is included in the set of rosters or other source data from which the sampling is done. (For instance, if the sampling is done from class lists, d_{1k} equals the number of classes student k is taking.)

d_{2k} = number of times the student actually was selected as a sample member.

N_{ij} = total number of students in school i, in cell j (including multiple entries, in those schools where the student sampling was done from sources that might include multiple entries).

n_{ij} = number of students selected for the sample from cell j in school i.

The weights defined by formula 2a above are used for estimates of statistics for the population of students in the population of schools. Occasionally, however, it is desirable to get estimates for the population of students in the selected sample of schools. For this purpose formula 2b, below, is used: *

$$W' = \frac{W_{4ijk}}{W_{3i}} \tag{2b}$$

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* It should be noted that the W′ weights were the weights applied to members of the student sample in determining the percentages of nontraditional male and female enrollment in each school in the sample, shown in Appendix A.2, in Table A2-7.

The formulas for teacher weights and counselor weights (in the sample school) are respectively:

$$W'_{3i} = \frac{N'_i}{n'_i} \cdot W_{3i} \qquad (3)$$

and

$$W''_{3i} = \frac{N''_i}{n''_i} \cdot W_{3i} \qquad (4)$$

In these formulas the notation is as follows:

W'_{3i} = teacher weight for teachers in sample from school i.

N'_i = total number of vocational teachers in school i.

n'_i = number of vocational teachers in sample, from school i.

W''_{3i}, N''_i, and n''_i are the corresponding values for counselors in the sample school.

3. Weights for LEAs

The sample of LEAs used in this study was determined by the schools in the sample. Of the 100 schools in the sample, each was in a different LEA, except for two LEAs which contained two sample schools each. Thus the sample included 98 separate LEAs.

The formula is:

$$W_{2\ell} = \frac{1}{1 - \prod_{i=1}^{k_\ell} \left(1 - \frac{f_j}{F_j}\right)} \qquad (5)$$

where the notation is as follows:

$W_{2\ell}$ = weight for LEA "ℓ."

k_ℓ = number of sample schools in the LEA

k_ℓ = 1 for every LEA except the two containing two sample schools each. (For those two LEAs, k_ℓ = 2.)

Note also that in formula 5, Π represents the product of terms of the form $1 - \frac{f_j}{F_j}$ within the cell, just as Σ would represent the sum of such terms. In this usage, Π does not represent the transcendental constant 3.14159 ⋯ .

Note that when $k_\ell = 1$, in other words in every LEA except the two containing two sample schools each, the formula for the LEA weight simplifies so that the LEA weight is identical with the school weight.

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Appendix C.2

ACTIVITY INDEXES

1. Composition of Indexes and Subindexes

Composite scores set up on an *a priori* basis, on logical considerations, were developed to indicate level of activity in certain aspects of efforts at the state level and at the school level, to reduce sex inequity in vocational education. These composites are called activity indexes. For each state there are 11 state-level activity indexes and for each school there are 6 school-level activity indexes. (Initially it had been tentatively planned to develop 8 LEA indexes also, most of them involving responses of the LEA Director of Guidance and Counseling to the Counseling Questionnaire. But the plans to have LEA-level activity indexes had to be changed when it developed that only about half the LEAs had such a position as Director of Guidance and Counseling (or any approximately equivalent title). Each activity index was given a numerical designation such as index 3-7 or 1-12 in which the first digit (1 or 3) designated the level (1 = state level, 3 = school level) and the second element of the numerical designation represented the specific aspect of sex equity. Indexes with the second element "0" are the overall activity indexes for each state (activity index 1-0) or for each school (activity index 3-0). Table C.2-1 summarizes the meaning of the first and second components of the various indexes.

The state-level activity indexes are based upon responses to specified items in the State Director interview and the SEA Personnel interview. School-level activity indexes are based upon responses of counselors, instructors, and students to their respective interviews. Because of these different interview forms, answered by different respondents, it was convenient to set up "subindexes" for each index, and then combine them appropriately to compute the index. All 10 state-level topical indexes were then combined to obtain the overall state index (1-0) and all 6 school-level topical indexes were combined to obtain the overall school-level index (3-0).

Table C2-2a shows the composition of the 14 state-level subindexes and Table C2-2b shows the corresponding information for the 12 school-level subindexes.

As shown in these tables, each subindex is differentiated from the index to which it corresponds, by a capital letter following the index designation. Table C2-3 shows the meanings of these terminal codes for subindexes. Table C2-4 summarizes the number of subindexes and indexes by level.

Table C2-5 shows the number and kind of respondent per subindex. Table C2-6 shows the weight assigned to each component subindex in determining the indexes.

2. Scaling of Indexes and Subindexes

Each subindex score was scaled (by linear transformation) to have a mean of 50 and a standard deviation of 10. Index scores likewise were scaled to have a mean of 50. Their standard deviations varied however since lack of perfect agreement (correlation) between the component subindexes would automatically cause a reduction in the meaningfulness, and correspondingly a reduction in the standard deviation of the index. Table C2-7 shows mean, standard deviation, and possible range of each activity index.

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TABLE C2-1 Components of Activity-index Code Numbers

First Component - Level

1. State level
2. LEA level
3. School level

Second Component - Topic

1. Internal affirmative action
2. Incentives to schools
3. Awareness and support programs for students
4. Awareness and support for older women
5. Staff awareness
6. Local awareness
7. Employer and community liaison
8. Title IX review
9. Model building/research
10. Monitoring/review/data collection
11. Financial commitment to 104 b 1
12. Advisory Council
13. Sex Equity Coordinator activities

TABLE C2-2a State-level Activity Index Components (subindexes)

Index No.	Name of Index	Source Instrument	Item Nos. (& option nos.*)
1-1D	Internal affirmative action	SEA personnel	2-3
1-2A	Incentives to schools	State Director	1f, 1g
1-2D	Incentives to schools	SEA personnel	4-5
1-5A	Teacher Training/awareness	State Director	1b, 1d, 15b
1-7A	Employer and community liaison	State Director	15c, 15d
1-7D	Employer and community liaison	SEA personnel	19-20
1-8B	Title IX review	Sex Equity Coordinator**	38, 40
1-9A	Model building/research	State Director	1a, 1c, 1e, 15a
1-9D	Model building/research	SEA personnel	16-18
1-10A	Monitoring/review/data collection	State Director	8-14
1-10D	Monitoring/review/data collection	SEA Personnel	23-30, 33
1-11B	Financial commitment to 104b 1	SEA Equity Coordinator**	44, 49
1-12C	Advisory Council	Exec. Dir. of Advisory Council***	66a(f), 67-70, 71a, 72, 78
1-13A	Sex Equity Coordinator	State Director	3-4

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* Option numbers are the numbers in parentheses following some of the item numbers. The option numbers are identified here the way they appear on the document, rather than the way they are recoded.

** Questions in SEA personnel interview asked only of Sex Equity Coordinator.

*** Questions in SEA personnel interview asked only of Executive Director of Advisory Council.

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TABLE C2-2b School-level Activity Index Components (subindexes)

Index No.	Name of Index	Source Instruments	Item Nos. (& option nos.*)	First Digit of Respondent Code
3-1F3	Internal affirmative action	Counselor	16-22	3
3-1G	Internal affirmative action	Instructor	20, 23-24	3
3-3F3	Awareness and support programs for students	Counselor	36-38, 40-41, 58	3
3-3G	Awareness and support programs for students	Instructor	40-44	3
3-3H	Awareness and support programs for students	Student Interview	17-19, 20a(f-g), 21a(f-g), 23a, 24a	4
3-4F3	Awareness and support programs for older women	Counselor	51-56	3
3-5F3	Staff awareness	Counselor	59-60, 59a(1-3), 60a(1-3)	3
3-5G	Staff awareness	Instructor	56-57, 56a(1-3, 57a(1-3)	3
3-7F	Employer and community liaison	Counselor	39	3
3-7G	Employer and community liaison	Instructor	45-47	3
3-8F3	Title IX review	Counselor	61-66	3
3-8G	Title IX review	Instructor	58-63	3

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*Option numbers are the numbers in parentheses following some of the item numbers. The option numbers are identified here the way they appear on the document rather than the way they are recorded.

TABLE C2-3 Subindex Codes, etc.

	Index	Subindex Letter	Instrument	Respondent Level	Respondent	
1.	State	A	State Director interview	1	01	State Director
		B	SEA Personnel interview	1	02	Sex Equity Coordinator
		C	SEA Personnel interview	1	05	Advisory Council Executive Director
		D	SEA Personnel interview	1	11-19 03,04, 21,02	Subject matter specialist Professional development, research, guidance and counseling, Sex Equity Coordinator
2.	LEA	E	LEA Personnel interview	2	All	Students
		F2	Counselor interview	2	21	Guidance and Counseling Director for LEA
3.	School	F3	Counselor interview	3	21	School Counselor (except feeder schools)
		G	Instructor interview	3	11-19	Instructor
		H	Student Questionnaire and interview	4	All	Student

TABLE C2-4 Number of activity indexes and subindexes defined at each level.

Level No.	Level	No. of indexes and subindexes					
		Subindexes					
		Part of Index	Same as index	Total	Topic Index	Overall Index	Total no. of distinct indexes
1	State	8	6	14	10	1	19
3	School	11	1	12	6	1	18
	TOTAL	19	7	26	16	2	37

TABLE C2-5 Expected number and kind of respondents per subindex.

(1) Index Level	(2) Sub-index Letter	(3) Number of Respondents Expected	(4) Respondent Level	(5) Kind of Respondent (Code)	(6) Number of Respondents of Indicated Kind per Site	(7) Kind of Respondent
1. State	A	1 per state	1	01	1	State Director
	B	1 per state	1	02	1	Sex Equity Coordinator
	C	1 per state	1	05	1	Exec. Director of Advisory Council
	D	7 per state	1	02	1	Sex Equity Coordinator
				03	1	Director of Professional Development
				04	1	Director of Research
				21	1	State Guidance & Counseling Director
				11-19	3	Occupational Specialists
2. LEA	E	1 per LEA	2	01 (or 02)	1	LEA Director
	F2	1 per LEA	2	21	1	LEA Guidance & Counseling Director
3. School	F3	1-4 per school	3	21	1-4	School Counselor (except feeder school)
	G	8 per school	3	11-19	8	Instructor
	H	35 per school	4	-	35	Student

TABLE C2-6 Computing overall indexes from subindexes

Index Level	Index No.	Weight to be applied to standard score					
	Subindex designation →	A	B	D	D	D	C
	Level of respondent →	1	1	1	1	1	1
	Kind of respondent →	01	02	02	11-19	03,04,21	05
		State Director	Sex Equity Coordinator		Occupational Specialist	Other	Exec. Director of St. Adv. Council
1. State	1-9	1/4		1/4	1/4	1/4	
	1-5	1					
	1-2	1/4		1/4	1/4	1/4	
	1-7	1/4		1/4	1/4	1/4	
	1-10	1/4		1/4	1/4	1/4	
	1-1			1/3	1/3	1/3	
	1-8		1				
	1-11		1				
	1-12						1
	1-13	1					

	Subindex designation →	E	F2	E
	Level of respondent →	2	2	2
	Kind of respondent →	01 or 02	21	Other
		LEA Director	G&C Director	
2. LEA	2-1	2/3	1/3	0
	2-3	2/3	1/3	0
	2-4	2/3	1/3	0
	2-6	2/3	1/3	0
	2-7	2/3	1/3	0
	2-8	2/3	1/3	0
	2-10	1		

	Subindex designation →	F3	G	H	-
	Level of respondent →	3	3	4	3
	Kind of respondent →	21	11-19		22-23
		Home sch. Counselor	Instructor	All Students	Feeder school Counselor
3. School	3-1	1/3	2/3		0
	3-3	1/6	1/3	1/2	0
	3-4	1			0
	3-5	1/3	2/3		0
	3-7	1/3	2/3		0
	3-8	1/3	2/3		0

TABLE C2-7 Activity index summary (Mean, standard deviation, possible range)

Index No.	Name of index	Min.	Mean	Max.	σ	No. of components (subindexes, indexes)
	STATE-LEVEL INDEXES					
1-1	Internal affirmative action	41.4	49.9	70.7	6.5	1
1-2	Incentives to schools	44.5	52.4	85.0	5.0	2
1-5	Teacher training/awareness	20.1	50.0	60.0	10.0	1
1-7	Employer and community liaison	37.3	53.4	64.4	4.6	2
1-8	Title IX review	20.3	50.0	57.4	10.0	1
1-9	Model building/research	32.6	51.0	67.4	5.2	2
1-10	Monitoring/review/data collection	24.7	54.1	69.4	6.1	2
1-11	Financial commitment to "104b.1"	30.1	50.0	65.0	10.0	1
1-12	Advisory Council	14.4	50.0	131.2	10.0	1
1-13	Sex Equity Coordinator	1.6	50.0	53.5	10.0	1
1-0	Overall state activity	29.7	51.5	72.1	3.6	10
	SCHOOL-LEVEL INDEXES					
3-1	Internal affirmative action	45.9	50.0	90.2	5.0	2
3-3	Awareness/support for students	21.1	49.9	101.4	3.2	3
3-4	Awareness/support for older women	41.9	50.5	75.0	9.0	1
3-5	Staff awareness	41.5	50.0	74.7	4.5	2
3-7	Employer/community liaison	39.9	49.9	70.0	4.4	2
3-8	Title IX review	36.6	50.1	67.0	5.0	2
3.0	Overall school activity	36.1	50.0	81.7	3.0	6

Appendix C.3

HOW SIGNIFICANT ARE TESTS OF STATISTICAL SIGNIFICANCE?

Routine tests of statistical significance are usually based on the assumption that the cases on which data are available constitute a simple random sample, drawn with uniform sampling ratios, from a hypothetical infinite population. In educational research, this combination of assumptions seldom holds *in toto*; many researchers choose to ignore that fact and to tacitly assume that the assumptions hold, in the belief that the fact that not all the assumptions are valid probably won't make much difference. But since it sometimes *does* make a substantial difference, it seems to us to be desirable to indicate to what extent there are departures from the assumptions, and what the effect of these departures is likely to be. There is a separate discussion for each of the following four kinds of unit of analysis: state, school, student, LEA.

A. State "sample"

The word "sample" was put in quotation marks because the state sample is so much better than an ordinary sample that for all practical purposes it is almost synonymous with the universe of states. Except for one state, not among the largest, every state and the District of Columbia participated at the SEA level, so that the state-level sample consists of 50 SEAs. But a 50-unit sample out of a 51-unit finite population is vastly superior to a 50-unit sample out of an infinite population. For instance the standard error of the mean is less than one-seventh as large as it would be if the population were infinite. The multiplier is $\sqrt{\frac{N-n}{N}}$ where N = population size (= 51), and n = sample size (= 50). Thus the multiplier is $\sqrt{\frac{1}{51}}$, which is equal to .1400* or $\frac{1}{7.1414}$. This means that any significance levels reported in the text grossly understate the degree of significance of the results. Another way of expressing this same idea is to point out that our 50-SEA sample gives exactly the same degree of accuracy as a 2500-SEA sample**

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*The multiplier would be 0 if the sample were identical with the universe--i.e., 51 units.

**The number 2500 comes from the fact that: $\frac{1}{\frac{N-n}{N-1} \cdot \frac{1}{n}} = 2500$

$$\text{where} \begin{cases} N = \text{finite population size} = 51 \\ n = \text{size of sample from finite population} = 50 \end{cases}$$

would give if the universe of SEAs were infinite. Values and differences that are reported not to be statistically significant almost certainly are statistically significant. The important question to be considered is not whether the difference is statistically significant but whether it is educationally or socially significant (or significant in some other functional way). It must be borne in mind that the fact that a difference is large enough to be "statistically significant" does not automatically mean it is large enough to be important.

B. School sample

The school sample was selected by a stratification procedure, which results in a better sample, with smaller sampling errors, than a simple random sample. Partly canceling this advantage is the fact that differential sampling ratios were used, which tends to increase sampling errors somewhat. However as was indicated in Appendix A1, paragraph C2c, the differences in ratios were kept under control successfully, so that any increase in sampling errors caused by the lack of uniformity of these ratios is probably negligible--and certainly not enough to wipe out the very real benefits in terms of reduced sampling error, that almost certainly result from the stratification. Thus, as in the case of state data, statistical differences are much more likely to be significant than tests of significance such as t-tests that make the standard assumptions of simple random sampling from an infinite universe indicate.

C. Student sample

The student sample results from a two-stage sampling procedure in which the first stage is selection of the school sample. Thus to the extent that the school sample is better than a simple random sample would be, the student sample benefits from the same advantages. On the other hand a two-stage procedure, though essential for practical reasons (time, money, logistics), can never be quite as good as a one-stage sampling to select the same number of students (about 3300) from the national population of vocational students would be. That procedure, of course, would have been completely out of the question.

However the second-stage sampling, like the first-stage sampling, was superior to a simple random sample for that stage, in view of the fact that a stratification procedure was used. Again, as in the case of the first-stage sampling (i.e., the school selection) the fact that differential sampling ratios were used probably does not increase sampling errors enough in the case of the student sample to counteract the advantages derived from stratification.

With all these factors operating in opposite directions, it is impossible to evaluate the net effect with sufficient assurance to assert that tests of significance assuming a simple random sample of students from a hypothetical infinite national population of students would underestimate or overestimate significance. Therefore such tests are generally not presented in this report.

D. LEA sample

The LEA sample was defined in terms of the school sample. This was a matter of practical necessity; the procedure, though it was necessary for practical reasons, is not precisely the same as picking the sample from the universe of LEAs. While the 98 LEAs provide a very reasonable sample, sampling errors are quite likely to be a little larger than tests of statistical significance might indicate. Such data must therefore be used with great caution, if at all. The chief problem lies in the fact that LEAs with more vocational schools in them had a somewhat larger chance of selection than LEAs containing only one school. While the LEA weights correct slightly for this fact, it is unlikely that a complete correction could be achieved with a sample no larger than the one selected. This is particularly true in view of the fact that large LEAs are considerably fewer in number than smaller ones.

Thus, to reiterate, the 98-LEA sample is a good one, but not perfect. And tests of statistical significance for LEA data are almost certainly largely inapplicable.

Appendix C.4

ESTIMATION OF CERTAIN PERCENTAGES REPORTED IN CHAPTER II.C

In Chapter II.C upper limit estimates of the amount of nontraditional enrollment lost through discouragement were made in two ways. Table C4-1 shows the details. Comparison of rows 1 and 2 with rows 3 and 4 shows that just as might be expected, the nontraditional proportions of enrollment are systematically different from the traditional and unstereotyped enrollment. Therefore rows 3 and 4 (weighted) were used in the computation, instead of rows 1 and 2. For the second estimate (row 8) raw frequencies were used because the numbers of cases in the "appreciate" category were considered probably too low to give stable weighted estimates.

TABLE C4-1 Estimating percentages by which nontraditional enrollment might have been increased if potential nontraditional students had not been discouraged.

Raw or wtd.	Row #	Occupational Category	Received discouragement from nontraditional enrollment?	Reaction to discouragement	Male Students	Female Students	Source (table #)	M	F
					No. of Cases				
Raw	(1)	Traditional and unstereotyped	Yes	All cases	108	195	C55	ab	ef
	(2)	Nontraditional	All cases	All cases	209	253	C55	c	g
Wtd.	(3)	Traditional and unstereotyped	Yes	All cases	34,449	257,623	C55	ab	ef
	(4)	Nontraditional	All cases	All cases	149,943	111,818	C55	c	g
Raw	(5)	Traditional and unstereotyped	Yes	Appreciate*	15	17	C57	ab	ef
	(6)	Traditional and unstereotyped	Yes	All cases*	124	234	C57	ab	ef
					Percentage		Reference		
	(7)	$\frac{\text{Row 3}}{\text{Row 4}} \times 100$ = upper limit % by which nontraditional enrollment might be increased, if those discouraged had not been			23.0%	230.4%	Page C-142		
	(8)	$\frac{\text{Row 5}}{\text{Row 6}} \times$ Row 7			2.8%	16.7%	Page C-163		

*Overlapping categories; some students counted more than once.

Appendix C.5

JOBS PLACED INTO EACH OF FIVE SOCIOECONOMIC LEVELS

The following jobs were loaded into each of the five socioeconomic levels.

Level #1 - Laborers and Unskilled Workers

Assembler
Assembly Line Worker
Baby Sitter
Bell Hop
Cafeteria - Food Service Worker
  (kitchen Aide, Lunch Aide, etc.)
Clean Up Man
Crossing Guard
Dish Washer
Exercise Boy/Stable Cleaner at Racetrack
Fisherman
Gas Station Attendant
Jack Man with Railroad
Laundry Worker
Longshoreman
Lumber Company Worker (Logger, Wood Cutter)
Machinery Parts Worker
Meat Wrapper
Meter Reader
Mill Worker
Newspaper Deliverer
Odd Jobs
Packer
Plantation Worker
Railroad Worker
Refinery Worker
Refrigerator Polisher
Sealer
Shop Worker
Warehouse Man
Farm Ranch Worker
Factory, Mine Worker

Level #2 - Semi-skilled Workers

Dietary Aide
Teachers Aide
Psychiatric Aide
Nurses Aide
Pharmacists Aide
Home Service Aide
Nursing Home Worker
School Worker
Library Worker
School Monitor
Day Care Worker/Licensed Baby Sitter
Beautician/Cosmetologist
Cashier
Cake Decorator
Ice Carver
Butcher/Meat Cutter
Bartender
Waitress/Waiter
Chauffeur
Tupperware Dealer
Vendor/Produce Stand Owner
Janitor/Maintenance Person
Night Watchman
Security Guard
Time Keeper
Telephone Operator
Telephone Answerer
PBX Operator
Dispatcher in Sheriffs Office, etc.
Boxer
Truck Driver
Armored Car Driver
Taxi Driver
Gas Deliverer
Garbage Man/City Sanitation Worker
City Water Department Worker
City Highway Worker
Road Construction
Railroad Engineer
Brake Man for RR
Signal Maintainer
Oil Field Work
Pumper for Oil Wells
Pipe Line Worker
Measurement Man For Gas Company
Sign Repairperson
Fence Builder
Envelope Maker
Drapery Installer
Carpet Installer
Milk Tester
Painter
Paint Mixer (machinist)
Machine Operator
Winch Driver
Dredger
Diesel Operator
Forklift Operator
Heavy Equipment Operator
Lathe Worker
Spinner
Power Sewing Operator
Moulder at Pharmaceutical Company
Press Worker
Steel Worker
Cement Plant Worker

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Level #2 - continued

Chemical Mixer
Sheet Metal Worker
Turbines Builder
Craneman
Sandblaster
Air Conditioning Cleaner
Blade Grinder
Barber

Level #3 - Skilled Worker and Lower-Level Supervisors

Auto Mechanic/Body Man
Maintenance Mechanic
General Technician/Service Technician
Steam Engineer
Stationary Engineer
Electrician
Air Conditioning/Refrigeration Engineer
Appliance Repairperson
Television Repairperson
Wire Man
Telephone Repairperson
Lineman for Electric Company
Elevator Installer
Equipment Chief
Water Plant Operator
Steamfitter
Pipefitter
Glass Cutter
Tile Maker
Welder
Tool and Dye Specialist
Dye Caster
Millright
Mason
Excavator
Glazer
Metal Coater
Dry Wall Finisher
Roofer
Carpenter
Construction Worker
Blacktop
Beer Brewer
Cutter-Tannery
Printer
Ink Maker
Boilermaker
Bookbinder
Videx Operator
Teletype Setter
Business/Office Machinery
Keypuncher
Orthopedic Bracefitter
Film Processor
Engraver
Upholsterer
Shoe Repairperson
Locksmith
Jeweler/Jewelry Maker
Landscaper
Airport Ground Crew
Riverboat Pilot
Truck Driver Trainer
Fire Captain
Correctional Officer
Prison Guard
Airforce/Navy/Coast Guard/Merchant Sea Person
Steward/Stewardess
Test Administerer
Court Reporter
Mailroom/Postal Worker
Shipping Clerk
Sales Clerk
Receptionist
Avon Lady
Sales Lady
Medical Secretary
Dental Assistant
Doctors Assistant
L.P.N./Paramedic
Paraprofessional with Retarded Children
Day Care Teacher
Animal Groomer
Cook/Baker
Seamstress
Hostess in Restaurant
Cafeteria Supervisor
Central Supply/Hospital
Traffic Officer

Level #4 - Proprietors, Sales Personnel, Managers, Technicians, and Teachers

Grocer
Florist
Funeral Director
Builder
Contractor
Business Person
Antique Dealer
Furrier
Food Broker
Truck Owner
Caterer
Distributer for Machinery
Oil Lease
Customer Service Agent

Level #4 - continued

Buyer/Purchasing Agent
Transportation Supervisor
Office Manager
Vice President of Operations
Customer Engineer
Personnel Director
Supervisor
Field Director
Day Care Administrator
Radio and T.V. Advertising
Credit Officer
Public Relations
Welding Supervisor, etc.
Camp Director
Code Enforcement Officer
Administrative Specialist
Warehouse Manager
Physical Therapist
Respiratory Therapist
Chemical Operator
Explosives Technician
Vacuum Technician
Makes Pacemakers
Draftsman
X-Ray Technician
Micro-Wave Consultant
Systems Analyst
System Management
Vehicle Analyst
Computer Service
Computer Operator
Electronic Technician
Equipment Specialist
Quality Assurance Technician
Lab Assistant
Marine Traffic Controller
Surveyor
Paraprofessional
School Teacher
Nurse
Social Worker
Survey Conductor
Librarian
Juvenile Officer
Ranger
Farmer
Counselor
Diver
Dog Warden
Assistant Dog Warden
Horticulturist
Chef
Entertainer
Media Specialist
Weight Watchers Consultant
Factory Inspector
Safety Supervisor
Labor Investigator
Safety Investigator
Labor Superintendent
Telephone Auditor

Level #5 - Officials and Professionals

Engineer (Technical, Civil, Electrical, Mechanical, Field, Estimating, Chemical, Agricultural)
Metallurgist
Geologist
Computer Software
Computer Analyst
Computer Programmer
Artillery Test Director
Airport Inspector
Army Officer, etc.
Pilot
Military Auditor
Auditor
Federal Meat Inspector
State Insurance Examiner
Water Board Official
Federal Director for JACS
Administrator
President, Vice President of Company
Hospital Administrator
National Sales Manager
Contract Administrator
Company Owner
Manufacturer
Mortgage Broker
Bank Manager
Loan Officer
Stocks and Bonds Dealer
Tax Assessor
Commissioner
Post Master
Contributing Editor
Photographer
Pharmacist
Professor
Commercial Artist
Musician
Designer
Interior Decorator
Lecturer
Interpreter
Dietician/Nutritionist
Social Services Director
Jr./Sr. High School Principal

Appendix D

GLOSSARY

GLOSSARY

The following definitions specify the meanings of certain items used in the data collection instruments.

1. Cooperative Education: A combination program of study and practice--conducted on an alternating schedule of half days, days, weeks, or other periods of time--providing legal employment for pupils with organized on the job training and correlated school instruction.

2. Cultural Awareness Program/Activity: A program/activity conducted by an educational agency for the purpose of informing staff of cultural variations among different ethnic groups, the implications of these differences for education, and/or ways to work more effectively with minority group members.

3. Feeder School: For the purpose of this study, a school, separate from the site visitation school, from which students enter vocational programs at the site visitation school. The student may or may not remain a student at the feeder school. A junior high school or high school which the student leaves to enter a vocational school is an example of a case where a student leaves the feeder school. A "home school" at which the student takes nonvocational subjects while attending a vocational center for vocational subjects is an example of a case where the student remains enrolled at the feeder school. A comprehensive high school at which a student takes both vocational and nonvocational courses is not considered a feeder school for purposes of this study.

4. Incentives to Schools: Includes financial incentives, such as augmented per-pupil allowances, and nonfinancial incentives such as better scores in state evaluations.

5. Job Development: An activity or program to identify employment slots not now being filled by vocational graduates and to work with employers to fill those jobs with vocational graduates. As used in this study, job development refers especially to opening jobs to persons of the sex not normally found in that job; in such cases, the employer may already hire vocational graduates, but such graduates have historically been only males or females, as the case may be.

6. Job Follow-Up: A research activity designed to determine what occupations are pursued by former pupils in occupational programs, and the effectiveness of their preparation in relation to job requirements. In this study, the term is usually used in questions enquiring about job follow-up activities of former nontraditional students above and beyond whatever follow-up is conducted as a matter of course.

7. Job Placement: Activities organized to help place pupils in appropriate educational and occupational situations after they leave the site visitation school, and/or to facilitate pupils transitions to these new situations. This may include, for example, admissions counseling, referral services, assistance with records, and communications with employers. In this study, the term is most often used to refer to services provided by educational personnel to place students on a particular job following occupational program completion (job entry placement).

8. Minority Group Member: A person whose racial/ethnic identification is other than "White--not of Hispanic origin."

9. Model Program: A program specifically designed to try out or demonstrate a technique for encouraging sex equity with the idea that others will emulate successful aspects of the program.

10. Nontraditional Course/Program/Field/Occupation: For a male (female) student, a course/program/field/occupation that is 80% or more female (male).

11. Nontraditional Staff: Those who perform a function that is performed by persons of the other sex 80% or more of the time.

12. Nontraditional Student: A student enrolled in a program in which 80% or more of the students are of the opposite sex.

13. 104(b)(1) Person: Same as Sex Fairness Coordinator.

14. Prevocational Counseling Program: A counseling process in which the pupil is assisted in utilizing his/her aptitudes and abilities to develop realistic career plans. Also orientation to a number of different occupational areas and counseling designed to assist a person in determining the occupational area(s) for which he/she might best prepare.

15. PL 94-482, The Education Amendments of 1976: An act amending the Vocational Education Act of 1963, among other Acts. The Act makes provision for the encouragement of sex equity in vocational education.

16. Reentry Program: A program to assist women who wish to train to reenter the job market after an extended absence. Reentry programs may include counseling before entry, remedial or brush-up courses, counseling support during training, day care services, and the like, designed specifically to help train to reenter the job market.

17. Sex Bias: Behavior resulting from the assumption that one sex is superior to the other. "Sex bias," as used in the Act, includes "sex discrimination."

18. Sex Discrimination: Action(s) which limits or denies a person or group of persons opportunities, privileges, or roles or rewards on the basis of sex.

19. Sex Equity: The absence of the various Sex Inequities, i.e., the absence of Sex Bias, Sex Discrimination, and Sex Stereotyping.

20. Sex-Fair Materials: Materials which treat both sexes in equal or similar ways. These may be guidance materials, program descriptions, instructional materials, etc.

21. Sex Fairness Coordinator: The full-time person who must be assigned to assist the State Board to fulfill the purposes of PL 94-482 related to sex equity, as specified in Section 104(b)(1) of that Act.

22. Sex Inequity: A broad term encompassing Sex Bias, Sex Discrimination, and Sex Stereotyping.

23. Sex Stereotyping: The attribution of behaviors, abilities, interests, values, and roles to a person or a group of persons on the basis of their sex.

24. State Level: The state level division, department, or agency most directly responsible for vocational education, unless otherwise specified.

25. Title IX Coordinator: That person designated by each recipient of federal funds under Title IX regulation, §86.8, to coordinate its efforts to comply with and carry out its responsibilities under Title IX.

26. Title IX Self Evaluation: The evaluation required by Title IX Regulation §86.3 of each recipient educational institution. This evaluation should

    (1) evaluate, in terms of the requirements of this Part [i.e., Title IX], its current policies and practices and the effects thereof concerning admission of students, treatment of students, and employment of both academic and nonacademic personnel working in connection with the recipient's education program or activity.

    As a result, the institution should:

    (2) modify any of these policies and practices which do not or may not meet the requirements of this Part [i.e., Title IX]; and

    (3) take appropriate remedial steps to eliminate the effects of any discrimination which resulted or may have resulted from adherence to these policies and practices.

27. Title IX of the Education Amendments of 1972: That section of PL 92-318 which requires that:

    > No person shall, . . . on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.

28. Traditional Course/Program/Field/Occupation: For a female (male) student, a course/program/field/occupation that is 80% or more female (male).

29. Unequal Treatment (of men and women): Same as "sex inequity." Term used in Student Interview.

30. Work/Study Program: A program in which the school arranges part-time paid work to help the student stay in school. This may or may not be a job related to the area in which the student is training. (See Cooperative Education and Job Placement.)

31. STATUS Scale

The following scale appears frequently throughout the data collection instruments:

STATUS

____ 1. No plans to do anything
____ 2. Will do something; formal planning not yet begun
____ 3. Will do something; formal planning begun
____ 4. Informally implemented on an individual basis
____ 5. Formal implementation has begun
____ 6. Fully implemented, or completed
____ 9. Don't know

Each scale point is explained briefly below, and illustrated with three examples.

- The first example in each trio pertains to the question,

  Does your state offer incentives to schools to hire women to teach in traditionally male fields?

- The second example in each trio pertains to the item,

  Does your state fund or sponsor special job development, programs, or activities for students in nontradtional occupational areas?

- The third example in each trio pertains to the question,

  Does your state review the distribution of grants by the State Board to assure that the interests and needs of women are included among the topics addressed?

1. No plans to do it.

- It has not yet been decided that something will be done in this area (even though it may have been discussed, perhaps favorably).

Examples:

1.1 No action is planned to provide incentives to schools to hire more women in traditionally male fields, even though the topic of incentives has been discussed very favorably at staff meetings.

1.2 The state has no plans to fund job development programs, but a task force has been formed to determine whether funding such programs or activities would be efficacious

1.3 Someone suggested that grants by the State Board be reviewed to assure that the interests and needs of women are addressed, but the idea was rejected.

2. Will do something; formal planning not yet begun

- It has been decided that something will be done in this area, but no one has begun to draw up plans, strategies, or approaches (even though responsibility may have been assigned).

Examples:

2.1 J. Doe of the Director's Office has been assigned the responsibility of drawing up the incentives plan. Doe will begin working on this plan in the fall.

2.2 The task force has recommended that job development programs be funded; the State Director has accepted their recommendation, but no further steps have been taken

2.3 It has been decided that the distribution of grants should be reviewed to assure that the needs and interests of women are included, but this review will not occur until the next funding cycle and responsibility for drawing up review criteria has not yet been assigned.

3. Will do something; formal planning begun

- Responsibility has been assigned for determining how to proceed, and those with this responsibility are now developing the plan, mapping the strategy, or laying out the approach.

Examples:

3.1 J. Doe of the Director's Office, responding to the planning assignment, has been contacting local directors to determine which incentives would be most effective.

3.2 A planning group is at work to decide on eligibility for funding under the job development program effort, and the types of activities that should be supported.

3.3 The committee that normally reviews state grants is holding meetings with interested groups to determine the standards to be used in determining if the needs and interests of women are adequately represented in the grants.

4. Informally implemented on an individual basis

- Some schools, departments, agencies, or individuals are doing this on their own initiative, not in response to any formal plan, strategy, or requirement.

Examples:

4.1 The state T&I director makes a special effort to refer favorably to schools that have made an effort to hire women in T&I. The director does this at conferences, in newsletters, and in personal contacts.

4.2 We have job development program effort, but it is not specifically concerned with sex equity. Many reviewers, however, do tend to favor those proposals that seem likely to foster equity.

4.3 Several staff members have looked over grants to see how much they address the needs and interests of women. They do not have formally approved standards and this is not part of the regular review process.

5. Formal implementation has begun

- Planning has been completed and some steps called for in the plan, strategy, or approach have been taken.

Examples:

5.1 Doe's plan has been completed and approved. Literature describing the incentives has been prepared and procedures for handling disbursements to districts under the program are being set up.

5.2 The job development program's RFP has been drafted, funds have been allocated, and responsibility for administering the job development program effort assigned within the agency.

5.3 The standards have been finalized and disseminated for use by those who normally review grants.

6. Fully implemented, or completed

- All planned steps are being, or have been, taken.

Examples:

6.1 All information dissemination called for in Doe's incentive plan has taken place and procedures for handling disbursements are in effect. (Even though all local agencies may not have availed themselves of incentives under the plan).

6.2 The RFP has been approved and distributed, and the structure for deciding which proposals to fund and for subsequent monitoring is fully functioning. Several proposals have been received and are undergoing review; more are expected before the deadline two weeks hence.

6.3 The standards are in use in the regular grant review process and have been applied during the past year.